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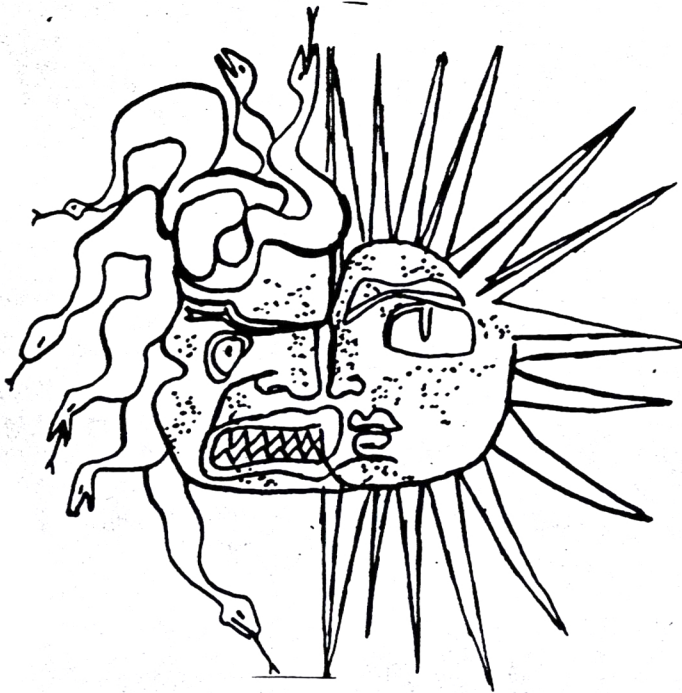
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THE SHAPING OF URBAN PLACE:

THE DIDACTIC MUSEUM AND THE DIALECTIC BETWEEN
ART AND TECHNOLOGY

[A MUSEUM OF SCIENCE AND TECHNOLOGY FOR SYRACUSE, NY]



ROBERT J. CORSON
THESIS PREP.
APRIL 22, 1991

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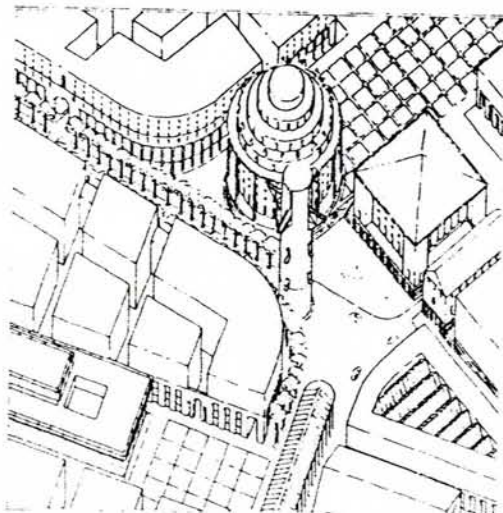
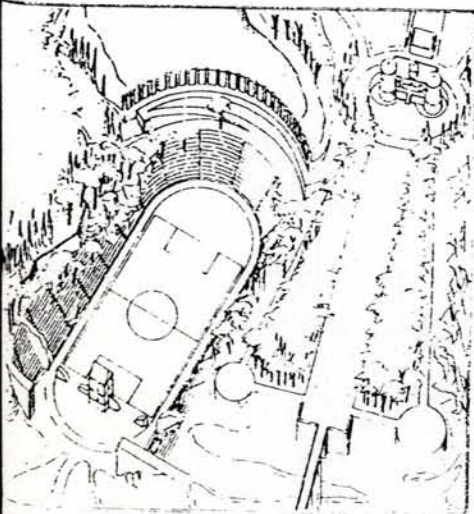
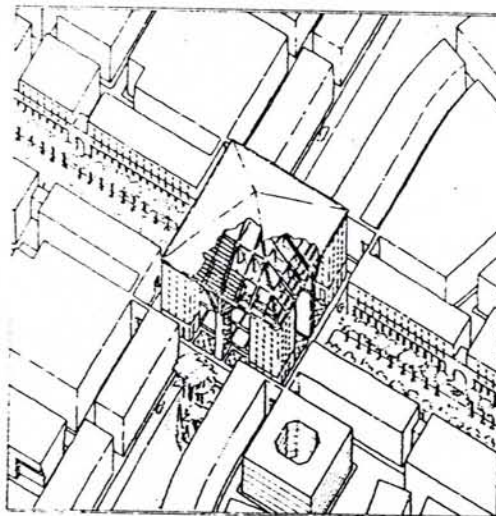
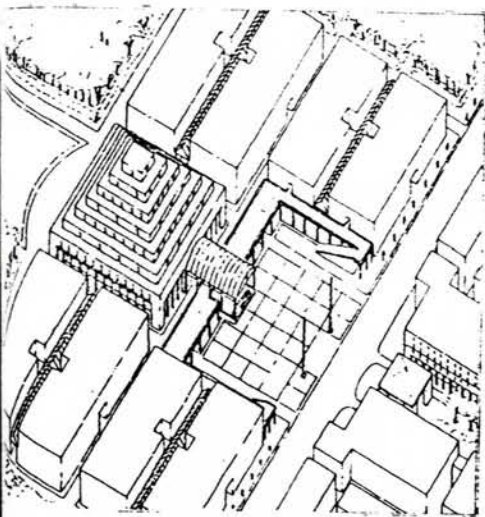
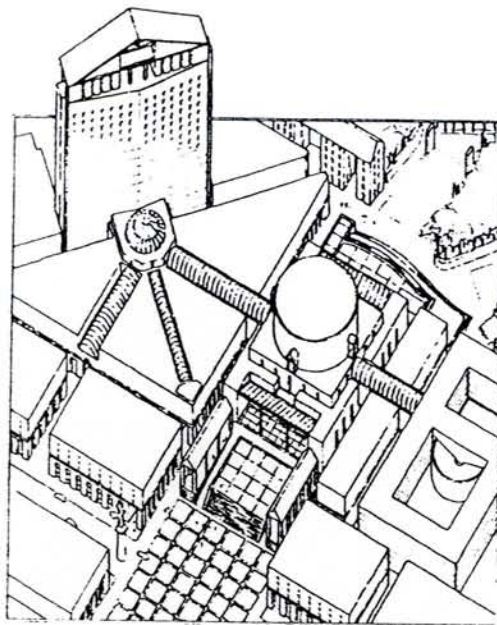
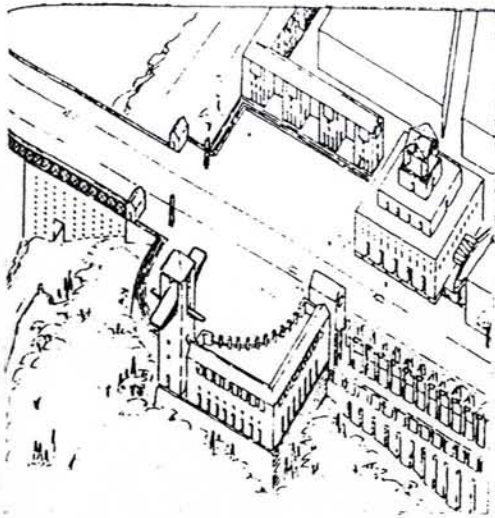
"A new dimension of thought and perception is opened up if the world is experienced in all its contradictions, that is in its multiplicity and variety, if it is not forced into the concept of homogeneity that shapes everything to itself" Oswald Mathias Ungers.

The hypothesis being that the Museum as a building type; as expressed through the ideals of the enlightenment, can shape urban place through its form and content. The intent is to use this hypothesis to shape a significant urban place in Syracuse, NY. The premise being that Syracuse does not have a space that serves as a public forum. This is not intended to reflect the history of Syracuse, but deal with some of the architectural and social problems that currently exist.

The architectural issues deal with the making of place, linkage of public spaces, making of edge, urban infill and the establishment of an urban identity. This begins to set up a set of issues that deals with the architecture that shapes that space. What does a museum of science and technology look like and should it literally express its contents. Can architecture cause interaction. The strategy for addressing these issues is to look back at the origins of museum and exhibition halls and apply the spacial and conceptual notions to the making of museum as place maker.

The emphasis of the place and the architecture will be on its didactic nature. The term didactic has a number of interpretations and implications applied to it by the various art forms of the era of enlightenment, i.e. poetry, literature, drama and architecture. Its reference for the purpose of this thesis are the qualities of education, instruction and moralization. The moral implications do not refer to its religious connotation, but refer to a policy of advocacy. Another interpretation of the word implies participatory actions; an illicit response or dialogue between the actor and observer. The supposition being that a didactic Museum must educate, instruct, advocate and engage the public. The premise being that through the formal characteristics and programmatic issues the architecture serves two roles: one of a didactic nature, the other as a public forum.

The thematic issues deal with the literal and metaphorical relationship between art and technology. The notion that technology affects art has both historical as well as empirical basis. The reference being to the dialectic between two polar elements and the conditions that result from that interaction. This implies that elements must engage each other to affect change or transformation. The metaphor can be related to the effects and reactions to industrialization. The advocacy this thesis takes is the role of understanding the issues and the implications as a means for forming a response; proactive as opposed to reactive. This lends itself to the program of a science and technology museum (center) because of the role it plays in the presentation of opposing views in a manner that requires an illicit response from the public. This implies that the observer is learning from the experience. This supports the notion of the place taking on the characteristics of a public forum.

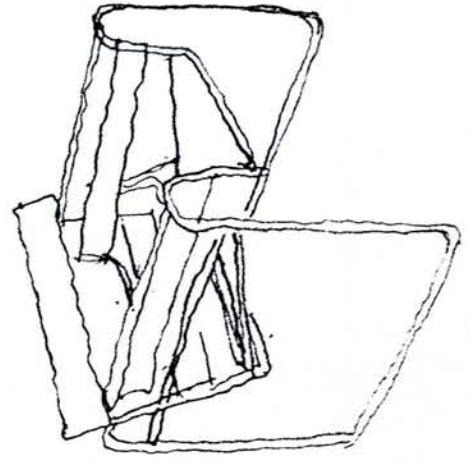
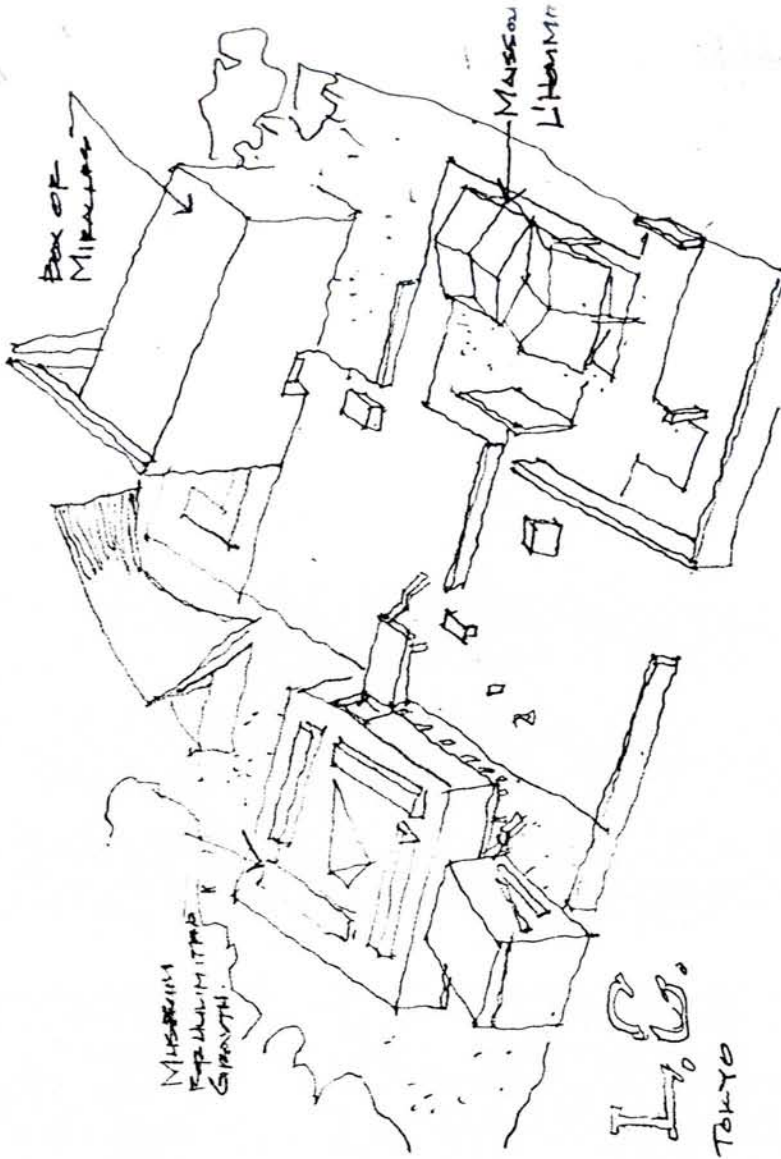


KPIER

URBAN MONUMENT

& PLACE

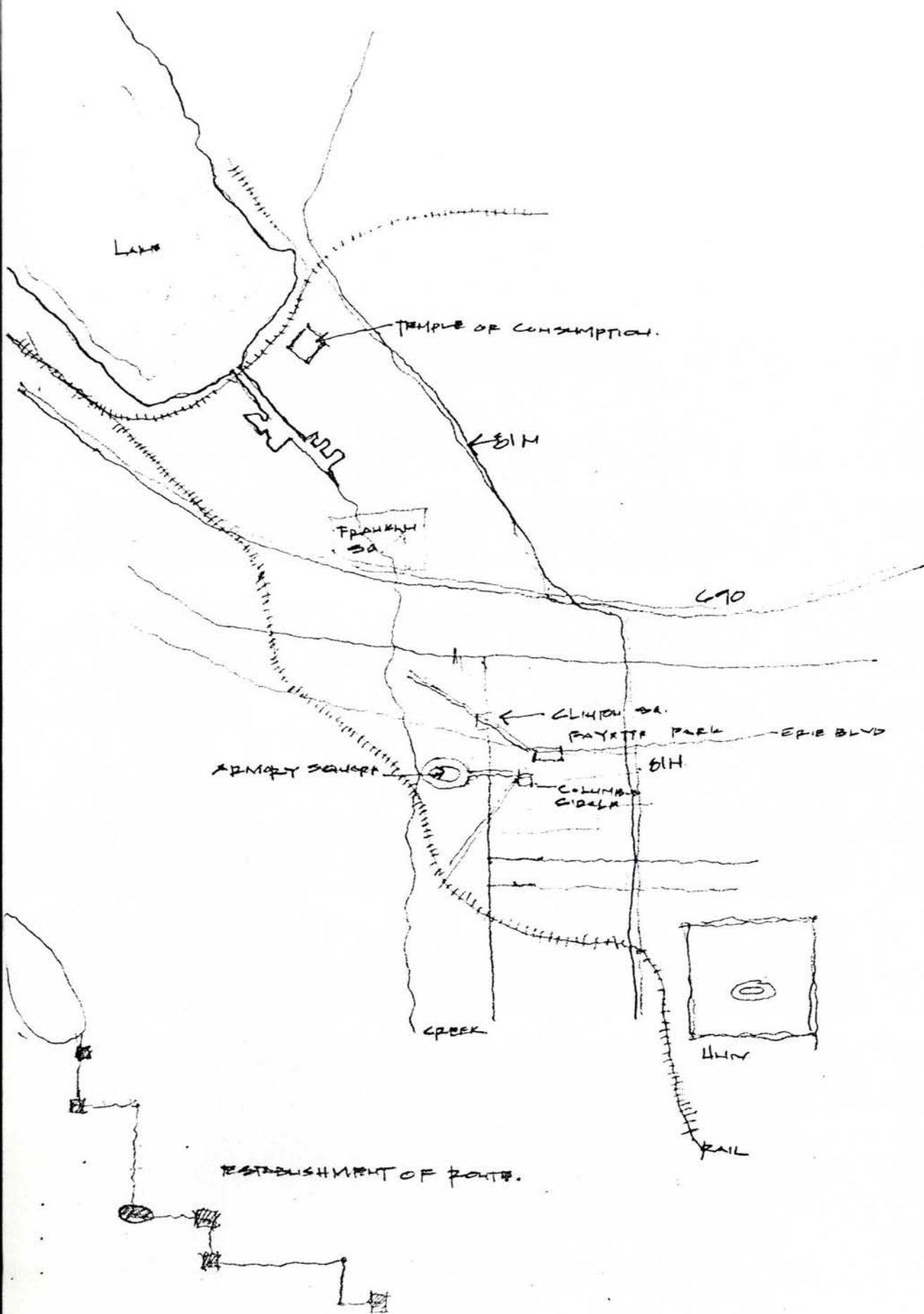
USE OF BUILDING TYPOLOGY
AND FORMAL IMPLICATION OF
TYPE. IDENTIFIABLE FORM
& CONTENT.

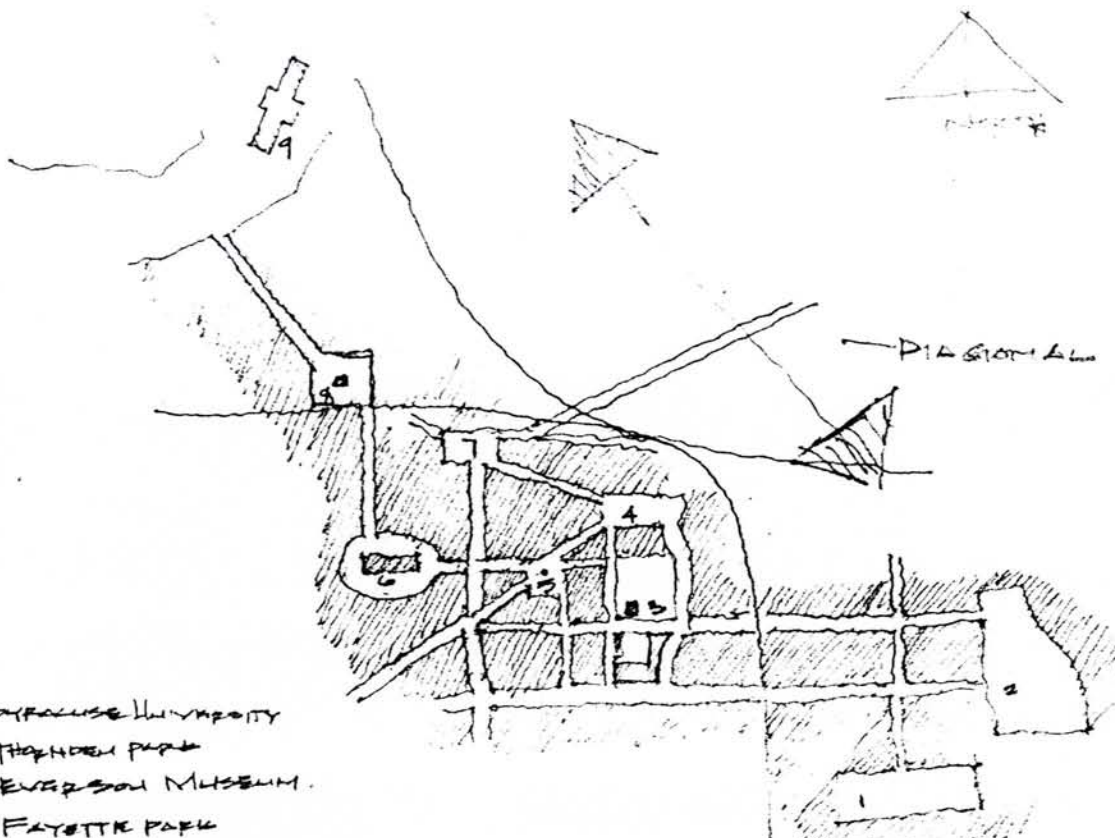


BRIDGE CHAIR

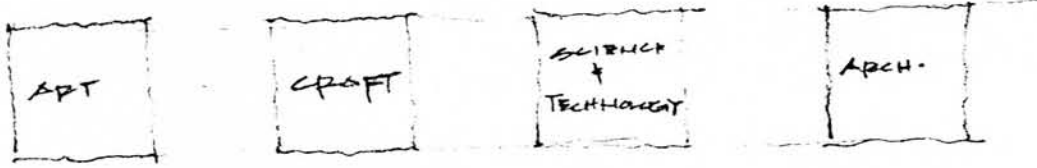


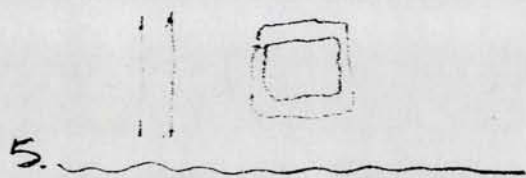
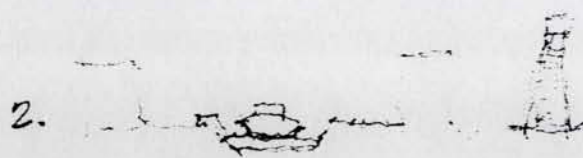
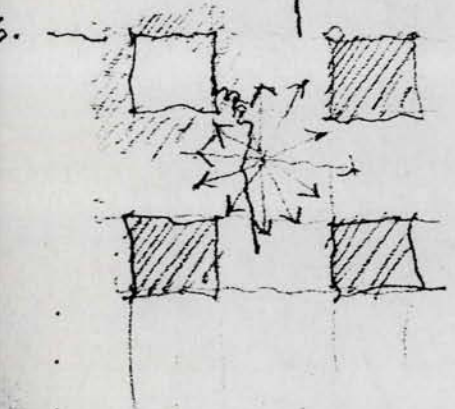
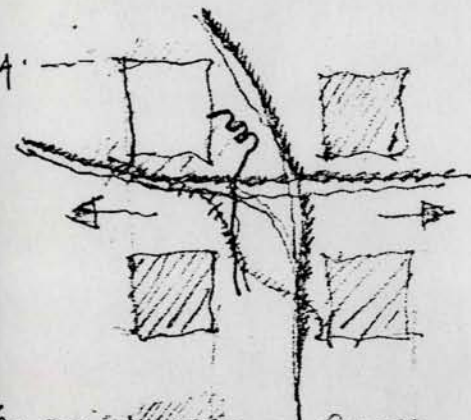
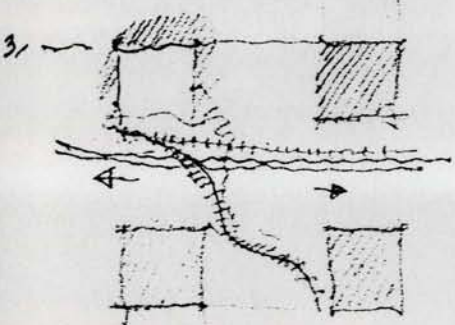
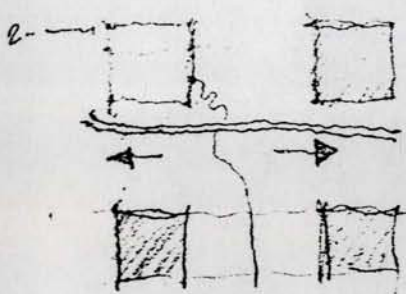
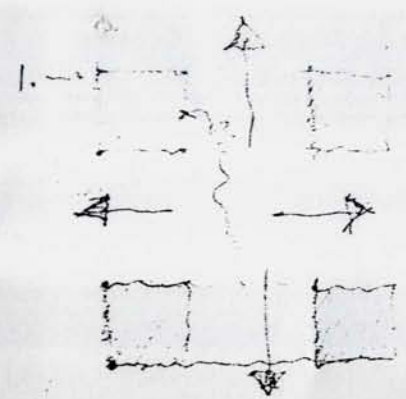
BRIDGE CHAIR





1. SYRACUSE UNIVERSITY
2. THOMPSON PARK
3. EVERSON MUSEUM
4. FAYETTE PARK
5. COLUMBUS CIRCLE
6. ARMORY SQUARE
7. CLINTON SQUARE
8. FRANKLIN SQUARE
9. COPART MALL - MUSEUM OF CONSUMPTION



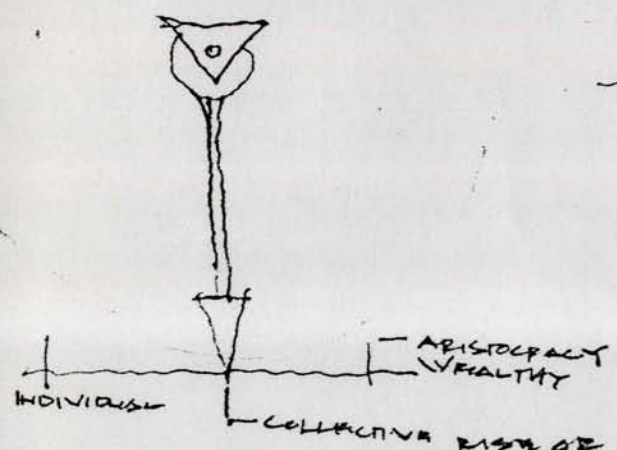


INDIVIDUAL INFLUENCE ON PUBLIC FROM
 • CULTURE
 • THEATRE
 • ARTS

CHURCH
 ARISTOCRACY

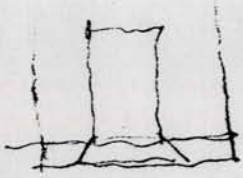
CONCESSION FOR INDIVIDUAL AS PART OF COLLECTIVE

BEFORE ENLIGHTENMENT

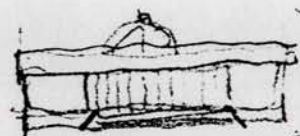


ENLIGHTENMENT

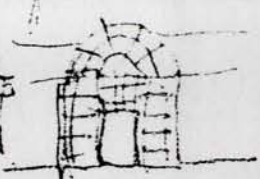
RISE OF
 PUBLIC
 INSTITUTIONS -
 BEGINNING OF
 IDEALS EXPRESSED
 IN MODERN MOVEMENTS.
 • CHURCH REPLACED BY
 INSTITUTION (MUSEUM)



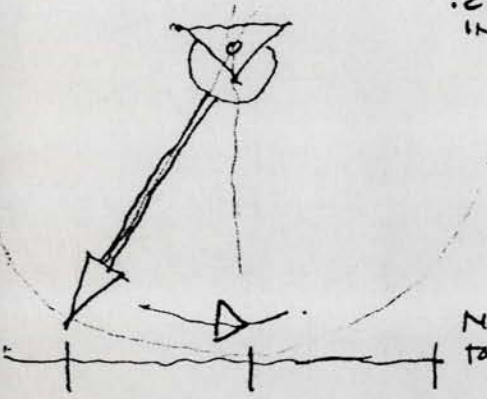
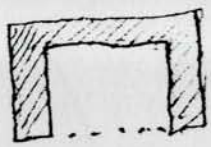
CHURCH
 DIDACTIC



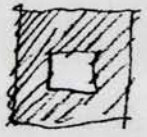
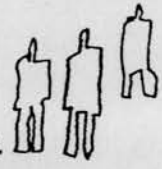
MUSEUM
 DIDACTIC



MALL
 COMMERCIAL



NEED TO GO BACK
 TOWARDS COLLECTIVE



MUSEUM REPLACED
 BY COMMERCIAL (MALL)

TODAY

REGULAR



CLOSED
OBJECT

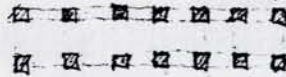
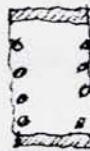
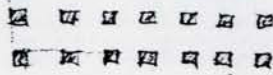


OBJECT

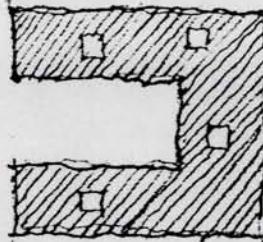


SUPER BLOCK

DIDACTIC



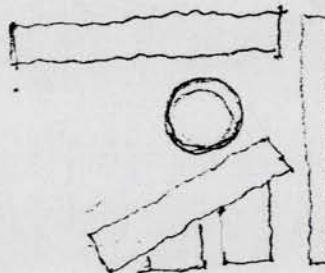
OPEN
SPACE (PLACE)



SPACE



AS ARTICULATED
ELEMENTS



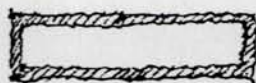
THE SALON

FOR THE SALON WAS "NOT A SPECTACLE FOR PASSIVE ONLOOKERS, BUT AN OPPORTUNITY FOR ACTIVE AUDIENCE PARTICIPATION AND JUDGMENT"

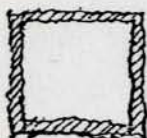
- CREATED A PLACE WHERE PEOPLE WERE MOMENTARILY EQUAL. POLITICAL PRISM OF SALON.

"THE CREATION OF THE SALON WAS MARKED BY A CONFLICT BETWEEN THE REPUTABLE CONNOISSEUR AND THE ARTISTICALLY ICONOCLAST VISITOR."

- CHARACTERIZED BY RIT OF PAINTINGS & ACTIVITIES.
- SALON AS MEDIATOR - HINGE, GATE, PORAL. PLACE FOR COMPT.

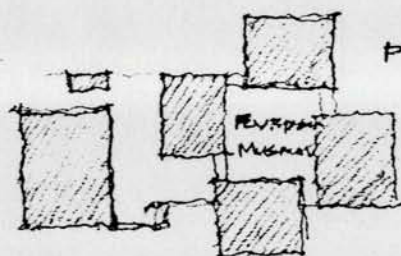


→ AS GALLERY

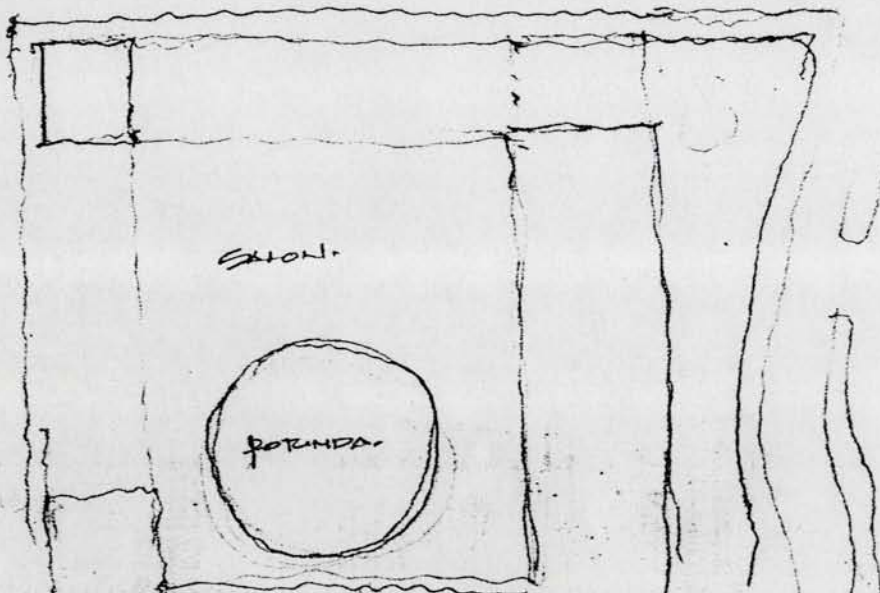


→ AS PICTORIAL SPACE

BEGAN AS EXTERIOR SPACE
FESTIVAL OF CORPUS CHRISTI.



PIHWAEL



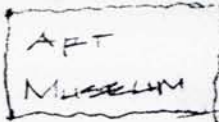
SALON

PORTRAIT

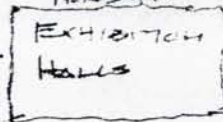
MUSEUM SLIPPER & TECH.



COMPRESSION



TENSION



- DIZARD TYPOGRAPHY
- ALTS
- DUTCH MONASTERY
- GLYPHOTHER
- BRITISH MUSEUM
- CHICAGO
- BOSTON
- ALPHE
- NEW JERSEY

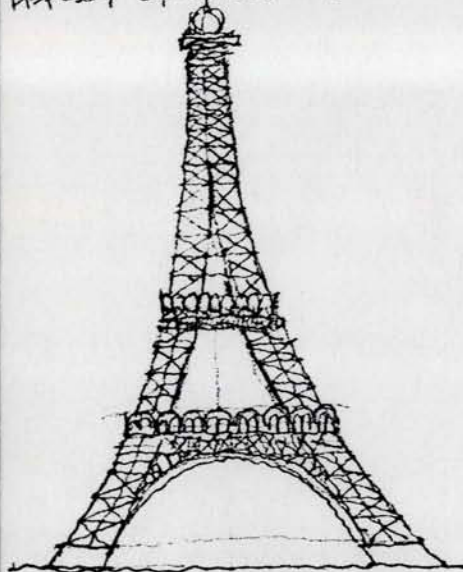
- GALLERY DES MACHINES
- CRYSTAL PALACE
- PARIS EXHIBITION 1867
- KAN GARDENS
- PHILADELPHIA UNIVERSAL EXHIBITION 1876
- BOU MACHÉ PARIS

- LEARNING AS OBJECT
- OBJECT

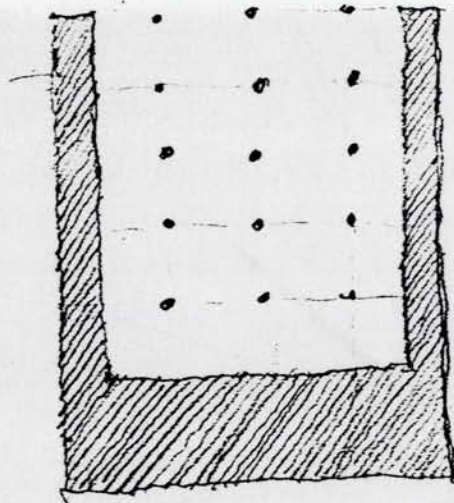
- AS COMMODITY
- PROCESS OF PRODUCTION

SHOWS BREAK OF ARCH FROM HISTORICISM - REFLECTION BACK TO ORIGINS.

ENGINEER AS SCULPTOR
PLAY OF AESTHETIC.



ARCHITECT/ENGINEER
COLLABORATION
TRAIN STATIONS



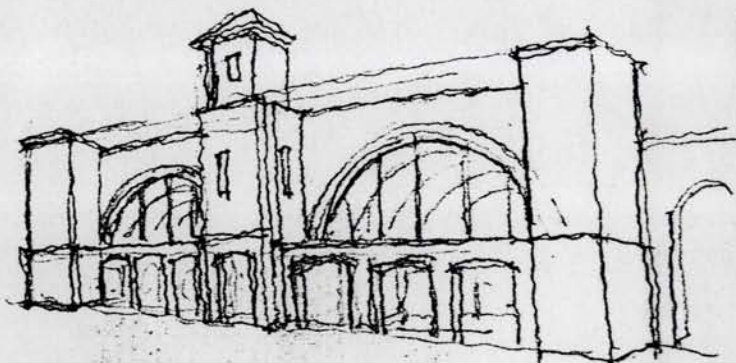
LEARNING

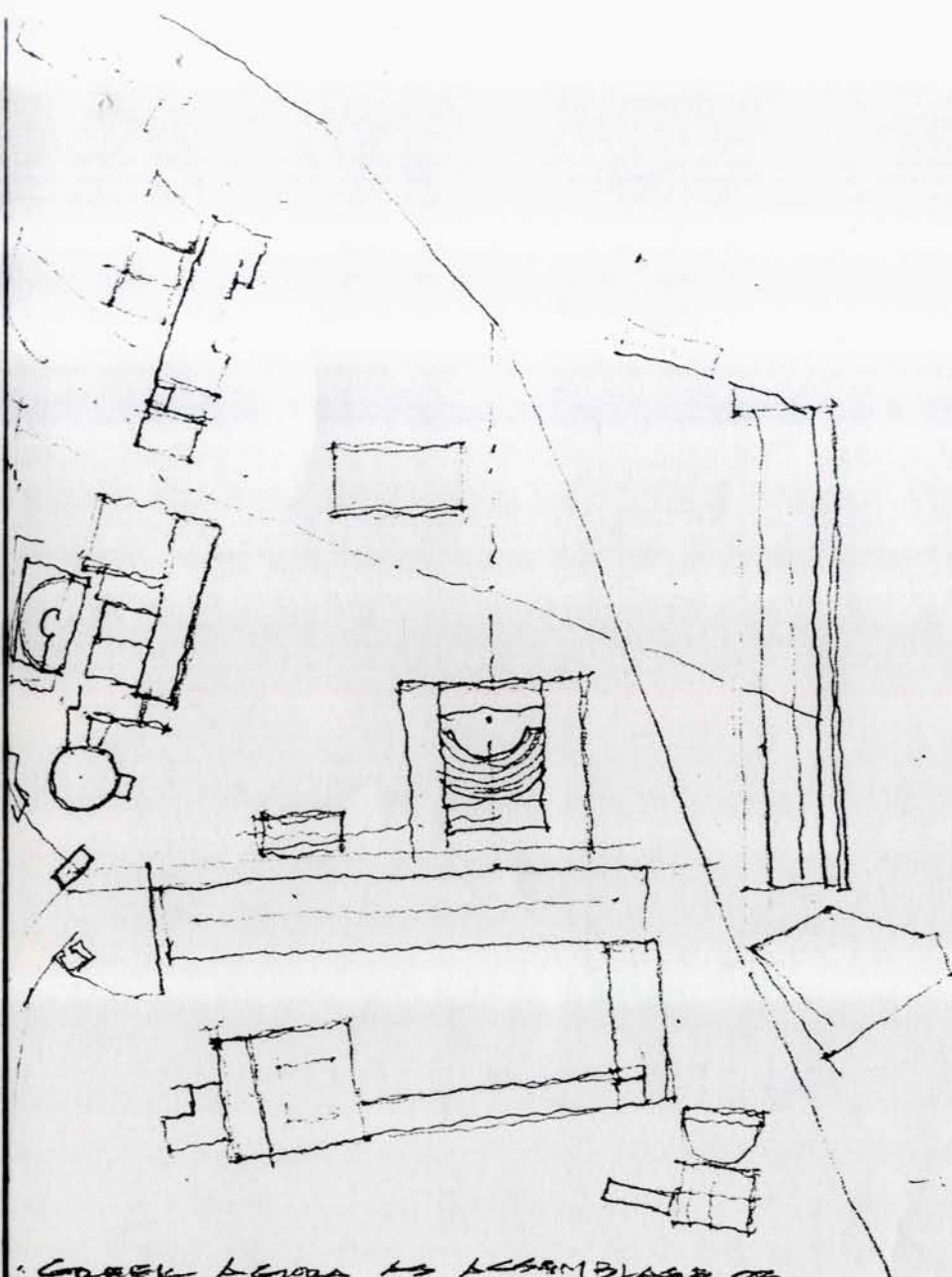
DISPLAY



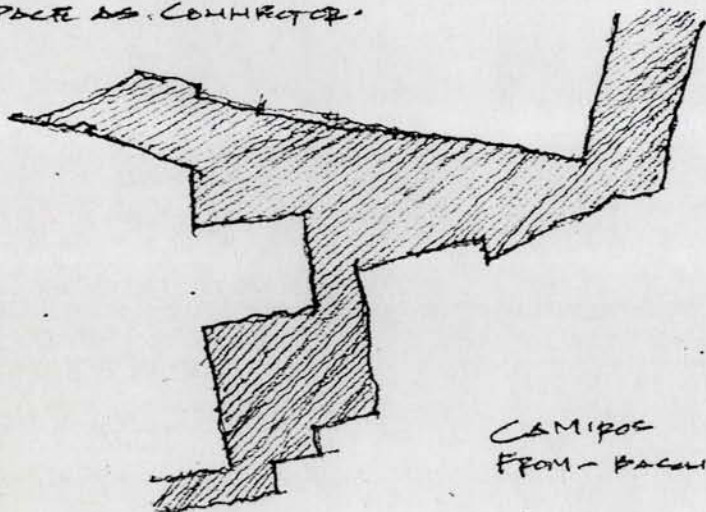
MUSEUM

EXHIBITION





: Greek Leipsa is ASSEMBLAGE OF
 BUILDING TYPES. EXPRESSION OF FUNCTION
 THROUGH FORM. LANGUAGE OF TYPE.
 COMPLEX SPACIAL STRUCTURE & RELATIONSHIP
 BETWEEN SIMPLE FORMS. EMPHASIS ON TENSION
 CREATED BETWEEN ELEMENTS.
 • SPACE AS CONNECTOR •



CAMIPOS
 FROM - BACULI

Museums possess " a great deal of potential, not only as a stabilizing, regenerative force in modern society, but as a crusading force for quality and excellence." Thomas P.V. Hoving

Much of the research for this thesis has gone into establishing the formal and conceptual basis of museum. The intention being to establish historical and empirical relation to a public forum. The importance of that public forum as a stimulus to the public that will engage the space. It is the shaping of an issue oriented place. The issues do not have to be specific, but they must illicit a response or must interact with the participant. The research lead to a great deal of reading in relation to the enlightenment and the ideals expressed during that era. The application of the term enlightenment was intended to reflect the transformation of society due to the scientific discoveries of the time. The relationship to our own time is in our attempt to resolve many of the same dilemmas. On a social level we represent the polar opposite of the enlightenment.

The opposition being that the struggle in the enlightenment was the establishment of the public institution replacing the role of the church. Our own struggle is to maintain an interest in the public realm. Through the use of those early models and their conception as a didactic instrument and transforming them to address the issues of today we can reestablish these institutions in the public realm. This can already been seen in the renaissance of the science museums in the past twentyfive years. The science museum maintains twice as many visitors as the art museum. The current trends in these museums is there use in advocating an informed response to social, political, economic, environmental and ecological issues. The programmatic issues begin to insinuate a forum for the discussion and interaction by the observer. The architectural issues deal with the relationship of the program and the container of that program. Does the architecture have to literally reflect the formal and conceptual issues of the contents. And, what are the formal implications of the creation of a forum. For this we must look at the origins of the museum in form and thought.

The enlightenment serves as the starting point of the modern museum. Through the work of the architectural theorists of the period we can see the development of the model and the influences that shaped it. Their reaction to the industrial revolution and the changing nature of the power structure of society. The fall of the church as the major public institution presented a dilemma. The dilemma being that the church had always been the educator of the public and also the institution that shaped their moral character. They recognized that there needed to be public institutions that would fill the void. The museum was born out of this development and they saw a need for the institution to play a didactic role within the urban condition.

"The museum can be a powerhouse;" Though only
if "Museum people and public get away from the
attic mentality." Dillon Ripley

What appears to have been a significant concern to them in the shaping of these models was their origin. The whole notion of origin influenced much of the theory of the era. They looked back to the Greek and Egyptian models of museum and library. The emphasis was on their mythological as well as religious base. The museum which is a derivative of the Greek word Mouseion; which means temple of the muses, was seen more as an academy. The implications of the name refers to a number of disciplines that are brought together for study. The nine original muses being, epic, music, love, poetry, oratory, history, tragedy, comedy, the dance, and astronomy. This notion was used by the Egyptians in the forming of the first museum. The museum of Alexandria is described as having a library, lecture halls, covered walks, reflectory, laboratories, scientific study, botanical and zoological gardens. The emphasis being placed on the educational qualities and also the ability to interact with the objects being studied. This shows the clear relationship to the didactic nature of the type and the beginning of a formal shape.

These first museums were reserved for the wealthy and elite of society. The museum of the enlightenment began to address the public at large. The basis of museum as a public place or forum can be traced back to a few specific forms. The most obvious being the church. They possessed a great deal of art which was part of the public display of the church. The problem being its relatively rigid theme and the emphasis of the art was to heighten the religious experience. The relevance is that it was a public gathering place that advocated a specific point of view. Another example deals with the feast of Corpus Christi in which the street and the square became the museum. On the feast day there was a great pageant in the streets in which everyone displayed their artwork or craft from their windows. There was a procession that ran through the streets which ended in the Place. The Place became the forum for the judgement of the best works of art from that year. Everyone was allowed to participate in the judgement of the works. It became a place where all classes came together and expressed public opinion. The description from Howes' book speaks about the diversity of the discussions, that in many cases there was more discussed about politics and the state of affairs than art.

Out of this procession the Salon was formed. This became the architectural equivalent of the Place. It was seen as a mediator between classes and a forum for discussion.

...for the Salon was "not a spectacle for the passive onlookers, but for active audience participation and judgement."

He also describes it as, "...a conflict between the erudite connoisseur and the artistically ignorant visitor." () This supports the notion that the museum grew out of a public forum in which the audience engaged in a dialog not only with the objects, but also each other.

The relevance of using the enlightenment is that it represented the rise in concern for the public realm. Our current society reflects another shift to the opposite side. The emphasis on the individual has supplanted that of the collective. We have maintained the pageantry of the promenade without any of the didactic features offered by the public monuments of the enlightenment. The question being, how do we reassert the role of the public institution within the urban context. The gathering places were once centered around the industry, commerce, government and transportation system. The reaffirmation has to take a form which addresses our current society and their interests. The Art Museum does not represent the pluralist role that it was ideally intended. The art museum has seen a great decline. This is either due to the inaccessibility of modern art or the attitude taken that art is only for a select group.

"A museum of science is in essence a school; a museum of art is a temple." Benjamin Ives Gilman

The science and technology museum has double the number of visitors as does the art museum. It is this dichotomy that needs to be exploited.

The formal concerns of the museum are well documented in the work of Bouleé, Ledoux, Durand, Schinkel etc. Durand through his publication of the *Precis des leçons d'architecture* donnees à l'Ecole Polytechnique establishes a system of type. This system reflects a concern for the architectonics of the model. These models had a vast impact on the architectural community. Their influence can be seen in the work of Schinkel and Von Klenze. The importance of this issue as it relates to the thesis deals with the interaction between engineering and architecture. The enlightenment also sees the direct influences of other disciplines on the transformation of architecture. Cross pollination as a means for informing another discipline was a key factor for change in many of the arts.

The grafting of the work of the engineer with that of the architect changed the face of architecture. The growing concern for the architectonic value of architecture can be traced to the theory of structure and origin. The work of Laugier in the speculations into the origins of architecture, as reflected in the primitive hut. The emphasis of his writing was on the theory of shelter. This assumed an interpretation of the constructional or architectonic parts of origin. This related to the science of structure was the basis for much of the work of the architects of the era. The formal implications being the modular structural

"By 1900 American Museums were becoming centers of education and public enlightenment. The development was rational in a country that prided itself on its democratic ideals and placed deep faith in public education as a political necessity and as a means of attaining technological excellence." Edward Alexander

system and the repetition of parts. The Exhibition halls of the mid 19th c. again began to recall this aesthetic. The notion of a modular structure and the use of iron to achieve long spans and great open volumes. The marrying of these two spacial models was manifest in train stations. The exhibition hall was used predominantly used to display the industrial wares of the era.

The exhibition hall was seen as the container of the revolutionary products of the machine age. This has been carried on even till today. The museum had the spacial implication of a series of enfiladed galleries that represented a more fixed connotation. The spaces were smaller and more intimate. The exhibition hall on the other hand represented open volumes and implied that the objects were there imperminantly. The large spaces were not intended to represent intimacy, but in many cases were sublime. The spacial implications of these two types provides for a interesting strategy for the articulation of a museum of science and technology.

The conceptual basis for the use of a museum of science and technology stems from its formal and metaphorical possibilities. It is not to be an attempt to foreshadow the future of architecture, but to reflect technology as a metaphor for growth and transformation. This combined with a relation to art allows a presentation of two polar points. They represent the beauty in change, but also the implications.

But industrialization also creates problems - harm to the environment and ecology, neglect of social, cultural, and humanistic values, depletion of resources and even threats to human existence. Thus progress needs to be considered critically - from a holistic social and humanitarian point of view.

This quote represents the polar points of view of the artists of the modern movement. Some have espoused the disintegration of art in respect for the machine. Others advocated an anti-machine aesthetic. While groups of artists were using technology as a means for informing their art.

"Hence the theme of fragmentation of dialectical contradictions, by no means needs to be romantic instead it adds to the awareness of a process that the individual object, or even the urban structure stand out, freeing it from the time of formal rigidity." O.M. Ungers

The exhibition at Darmstadt, the early Bauhaus reflect this concern for the integration of art and technology. The theme continued on and is currently a significant trend in the art world of today. The use of technology ranges from the etherial use of computers to form art through an interaction with a viewer; this represents a concern for the humanistic side of technology. Where as another group uses the mechanistic aspects combined with the computer in complex performance pieces that reflect the destruction of society; in many respects this represents the anti-machine point of view. The point being each form is concerned with engaging the observer in a dialogue. They are not concerned with approval, the main thrust is the response. The emphasis being on the integration of two elements in an attempt create another condition. This is a reflection of the modernist notion of crosspollination.

The theme of the thesis is again the shaping of urban place as a forum for the interaction of the public. The role of architecture in shaping the space and reflecting its own point of view in relation to its context. The use of the program of a museum of science and technology allows for the animation of the space. The program and the architecture have the ability to be shaped in a manner that serves its didactic intentions.

SITE

SYRACUSE, NY

Criteria for Site Selection

1. Easy access to the university.
 - a. Staffing, Universities Museum Studies Program
 - b. Additional research facilities
 - c. Faculty expertise as consultants
 - d. Provide an attraction for the students downtown
2. Planning criteria.
 - a. Use existing planning
 - b. Provide edge between CBD and Residential zone
 - c. Establish street walls along State, Harrison and E Adams St.
 - d. Provide public place between residential zone and CBD.
- e. A site that is visible by incoming traffic.
 - f. Proximity to civic, cultural and commercial sectors.

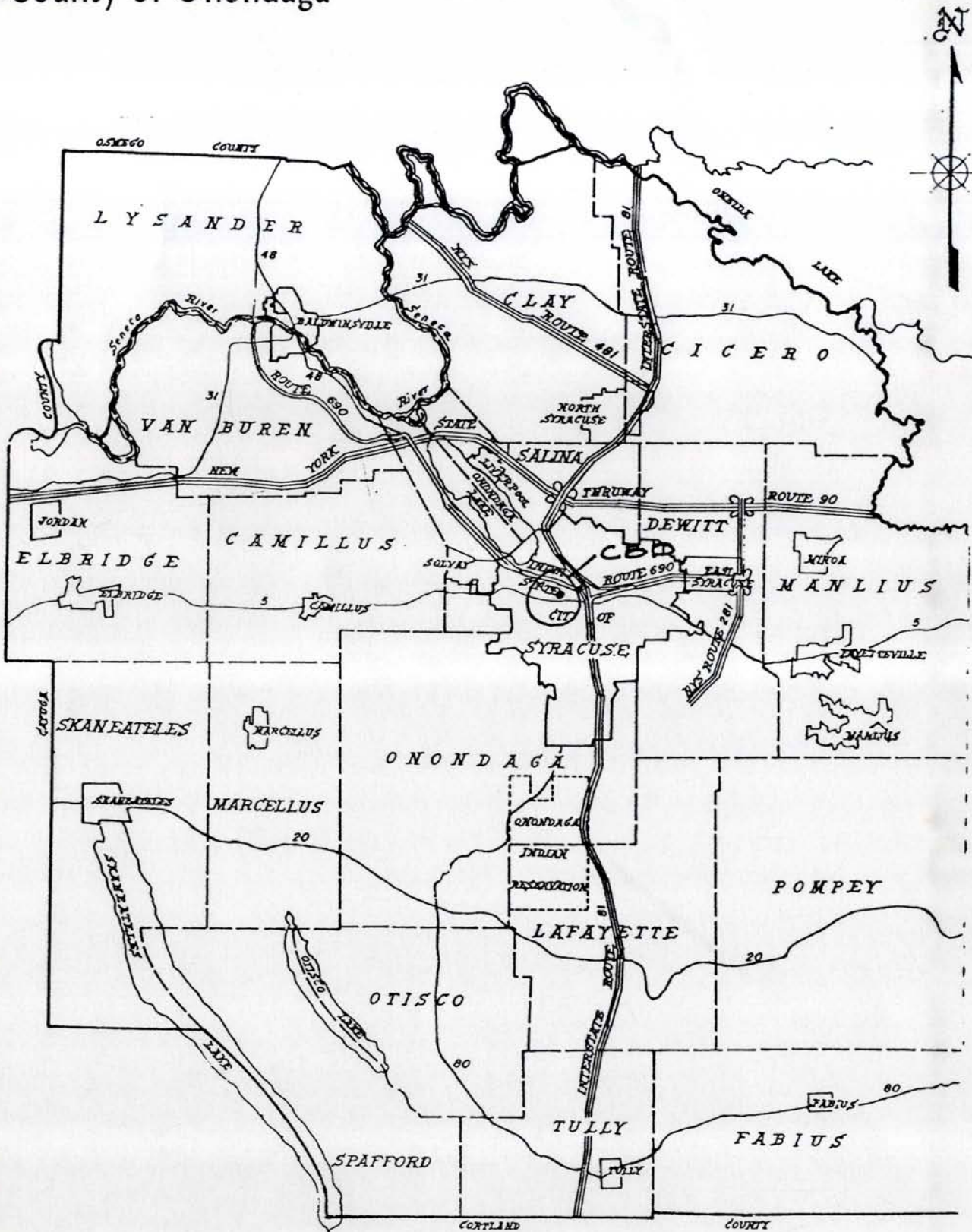
SITE

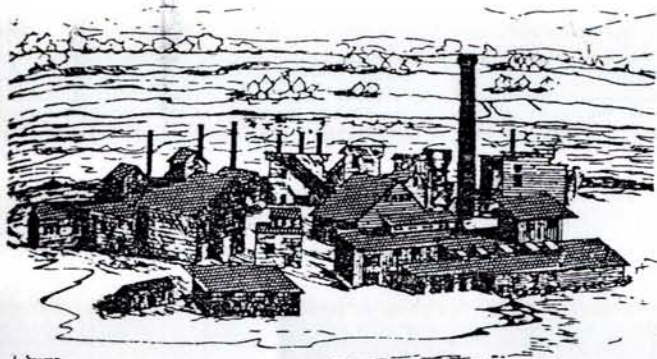
Open lot now used for parking south of Harrison Ave, East of State st, west of Townsend and north of E. Adams St.

ZONING CBD OSR,

F.A.R. 2; Exceptions noted in addenda.

County of Onondaga

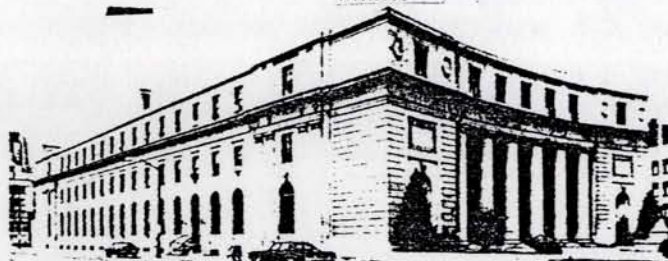




The Solvay Process Company in the Town of Geddes. Drawing by C.E. Miller.



The Solvay Salt Wells in the Town of Tully. Drawing by C.E. Miller.



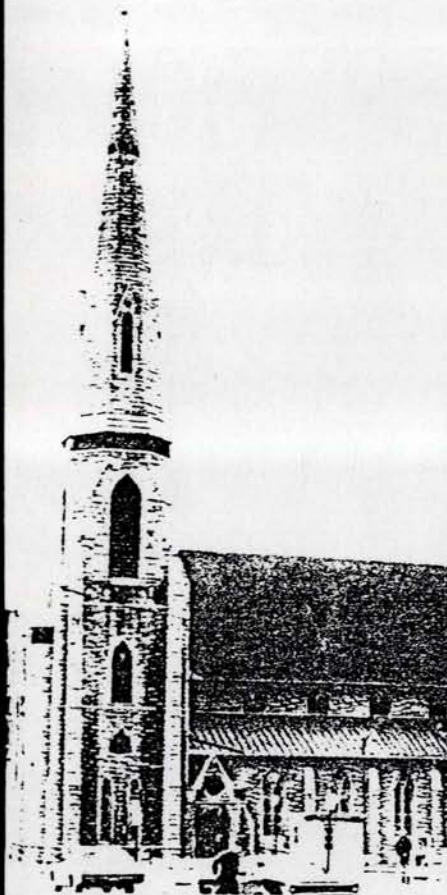
United States Post Office, Erie Boulevard West and North
Syracuse, 1928

LOCAL CONTEXT

- BLDG MATERIALS
- STEEL FRAME
- MASOUPY.
- LIMESTONE
- RED & GOLD BRICK.
- RED & WHITE LIMESTONE
- WOOD - OAK

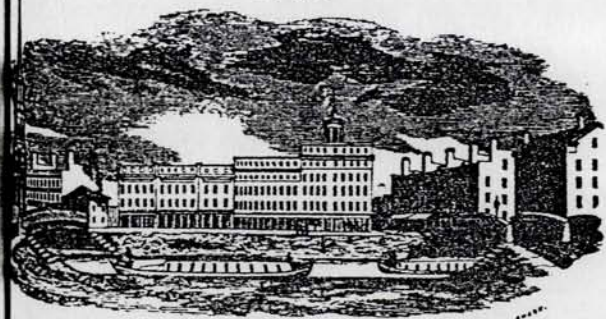


White Memorial Building (H.J. Howe, Inc.), 106 East Washington Street, Syracuse, 1876



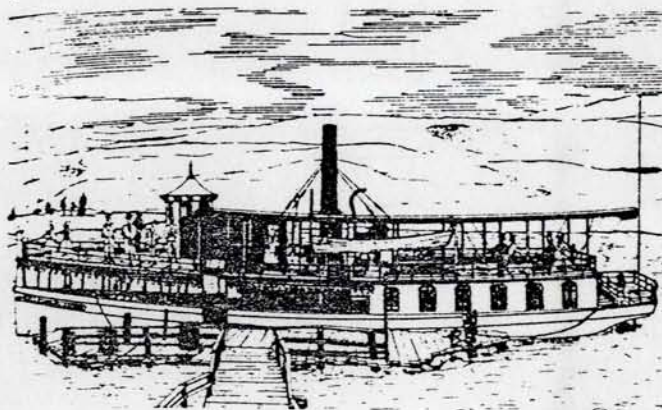
Paul's Episcopal Church (St. Paul's Episcopal Cathedral);
Montgomery and East Fayette Streets, Syracuse, 1885

1850.

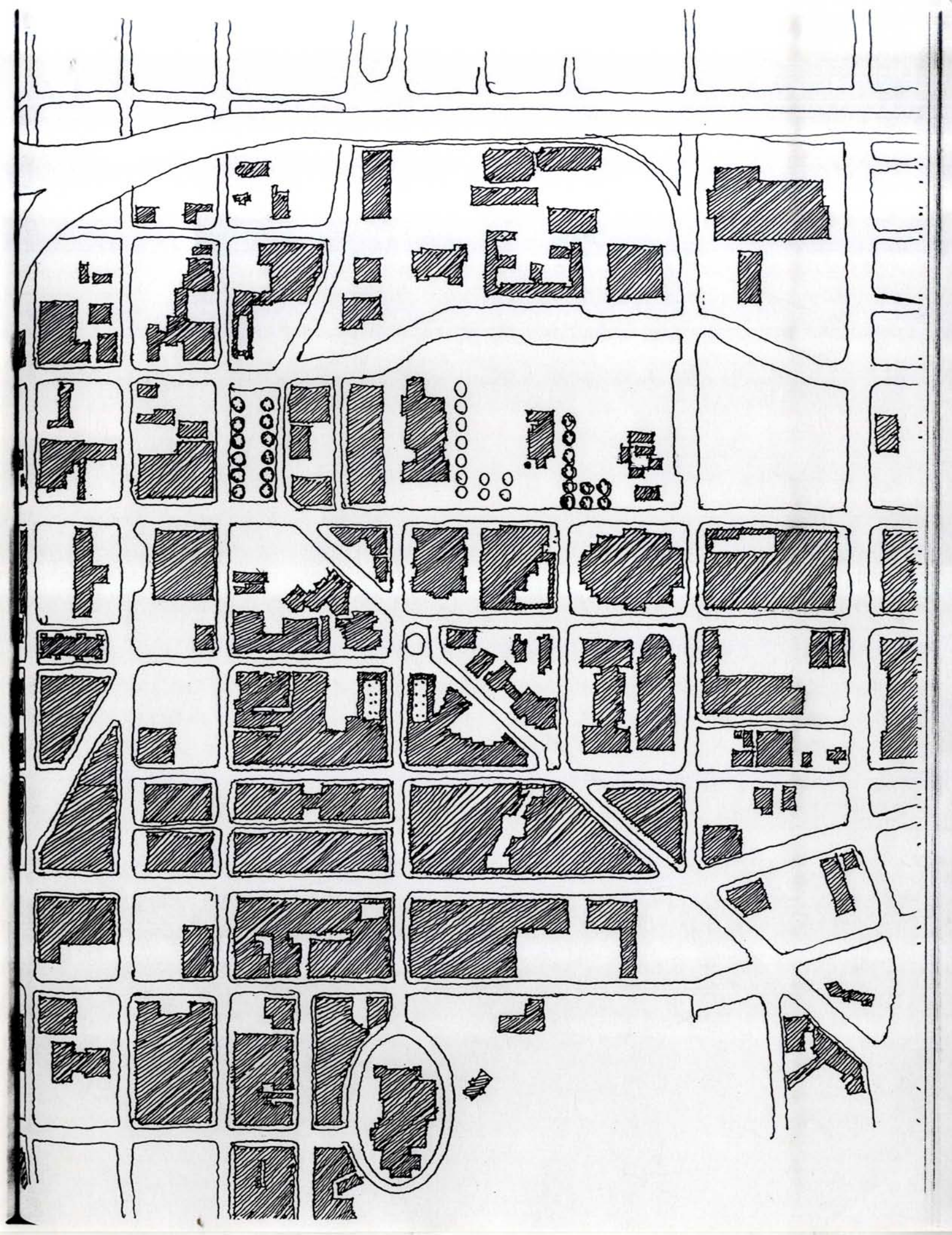


SYRACUSE, ONONDAGA COUNTY, N. Y.

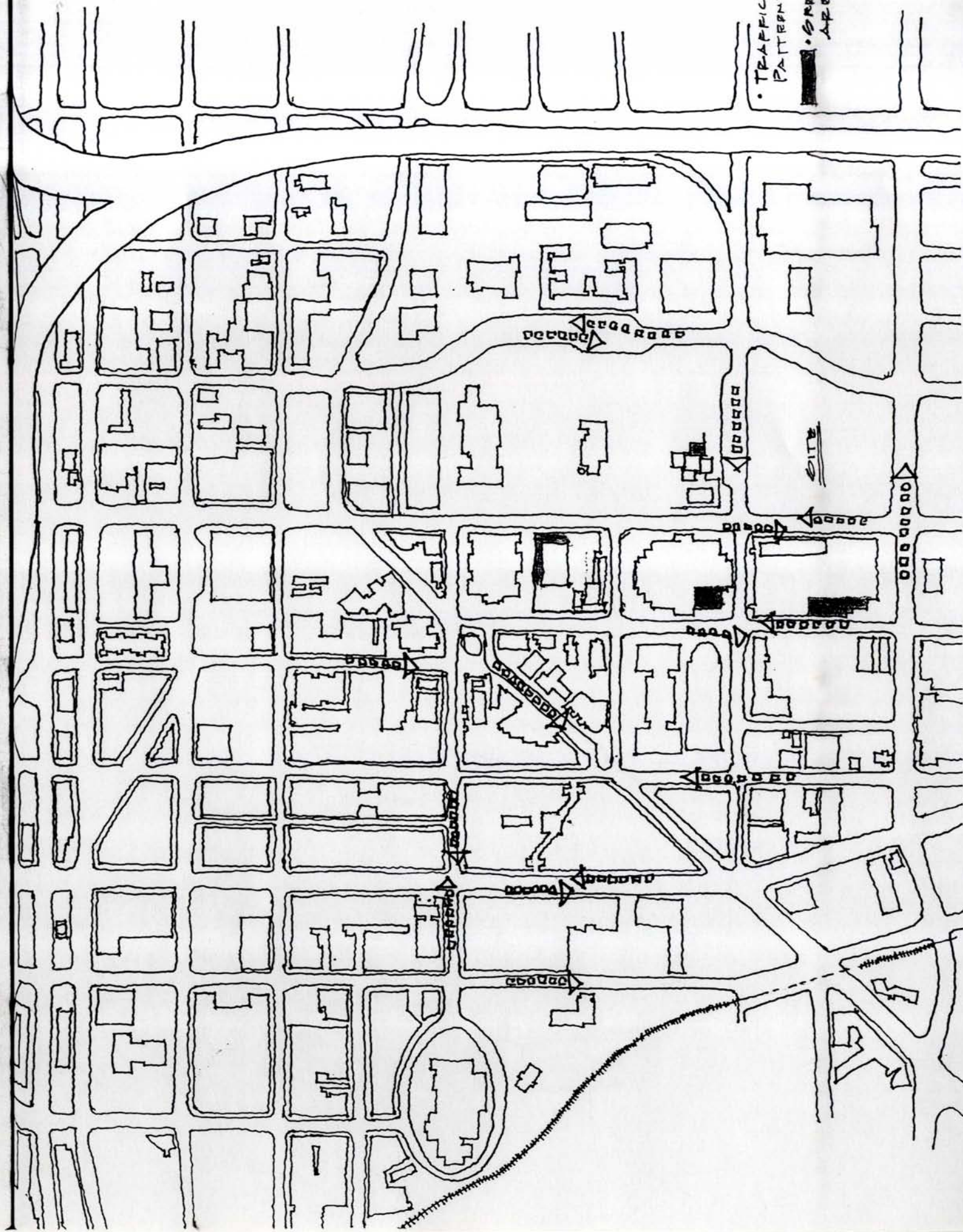
Franklin Chase, *Syracuse and Its Environs*, Lewis Historical Publishing Company, New York and Chicago, 1924.



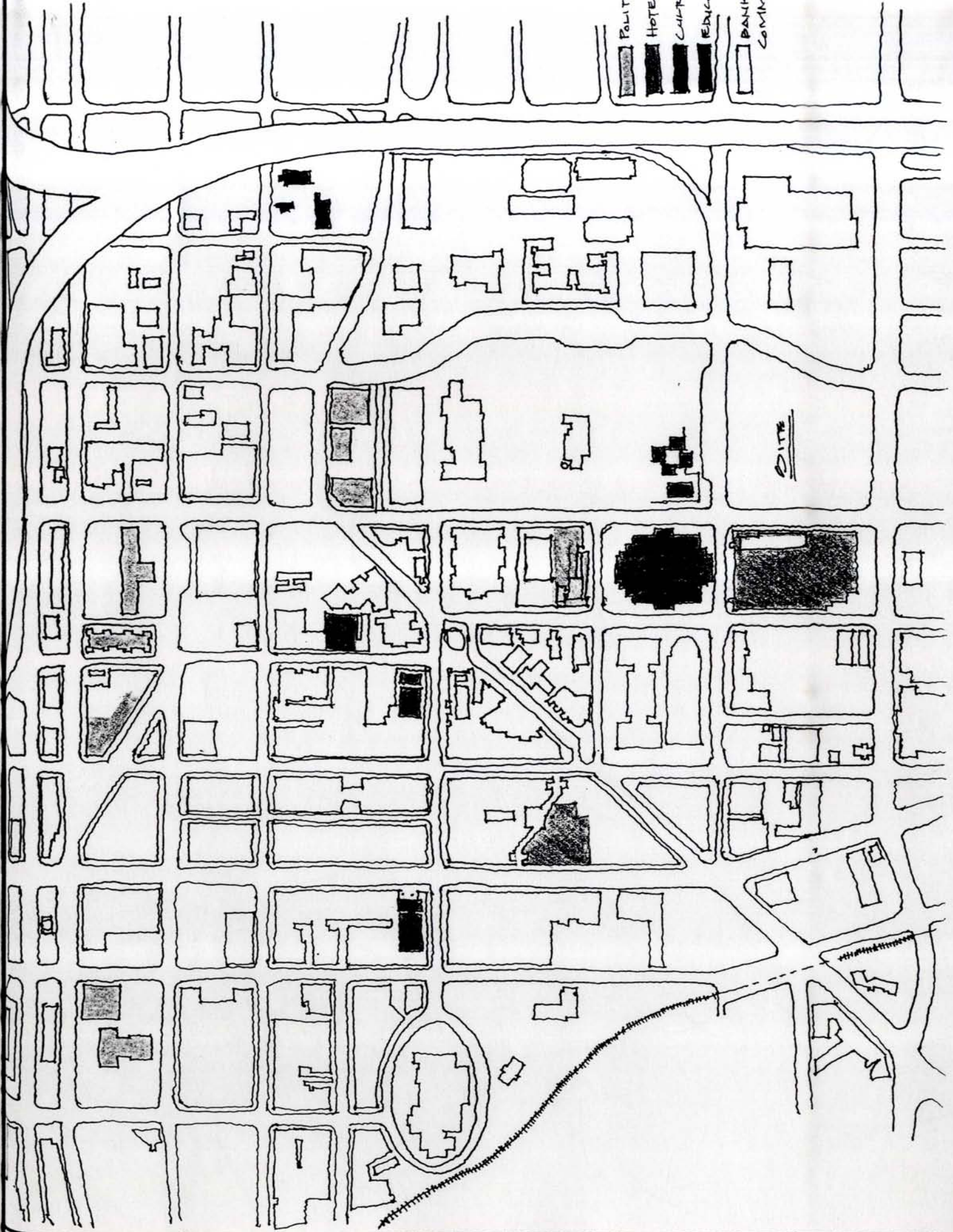
The "Glen Haven" at Borodino Landing in the Town of Spafford. Drawing by C.E. Miller.



• TRAFFIC
PATTERNS
• SERVICE
AREAS



POLITICAL
 HOTEL
 CULTURAL
 EDUCATION
 BANKS
 COMMERCIAL

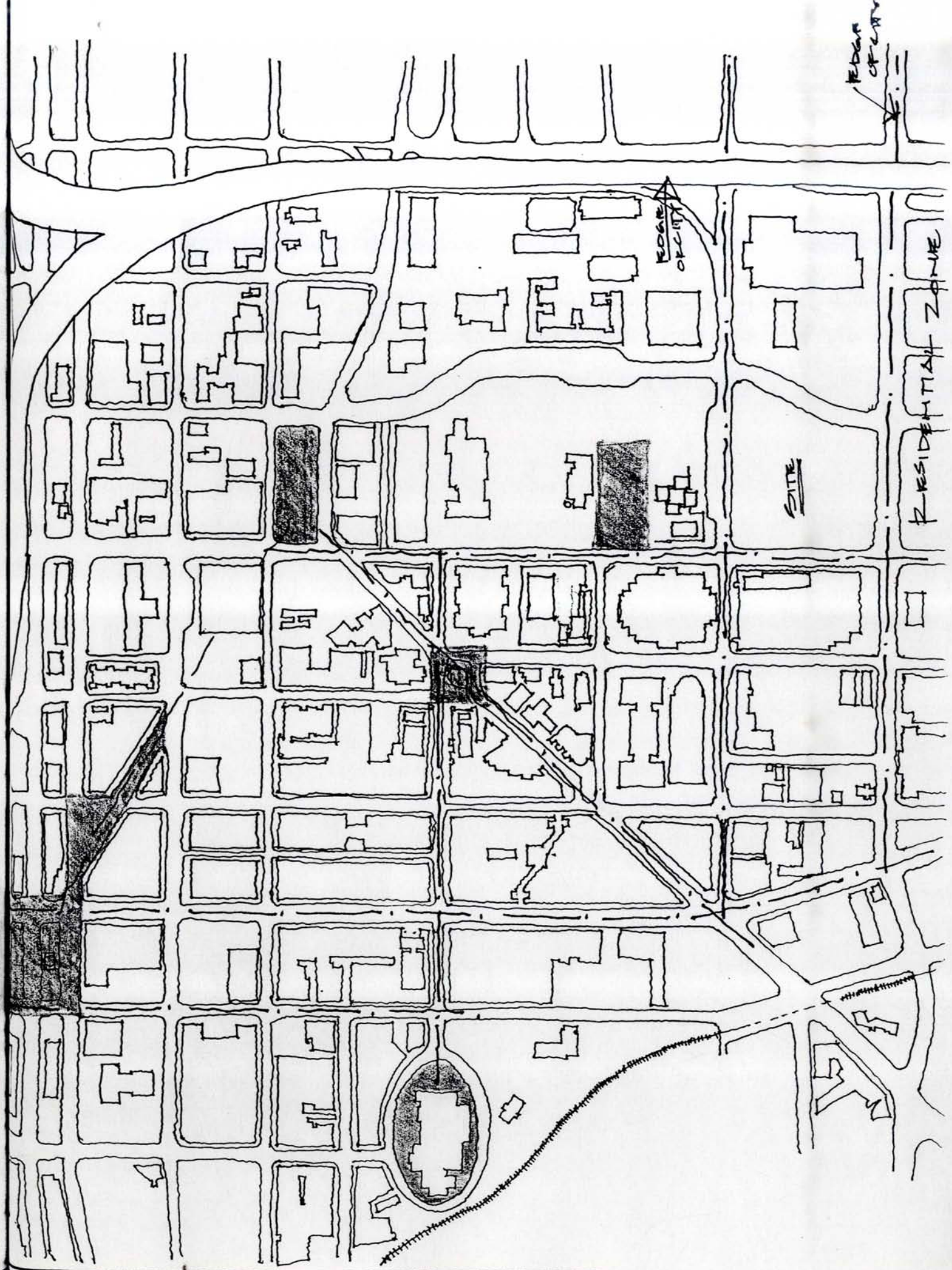


EDGE OF CITY

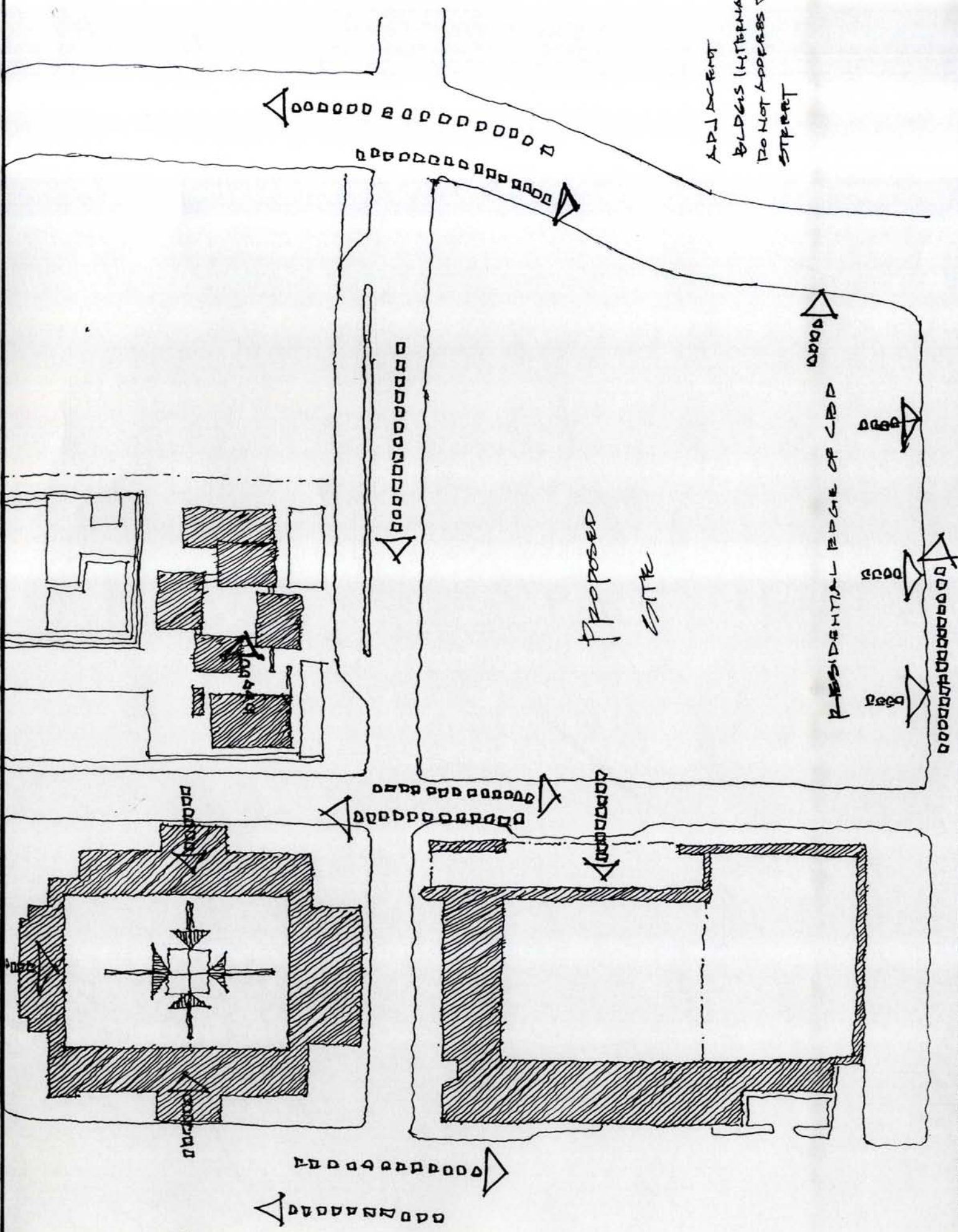
EDGE OF CITY

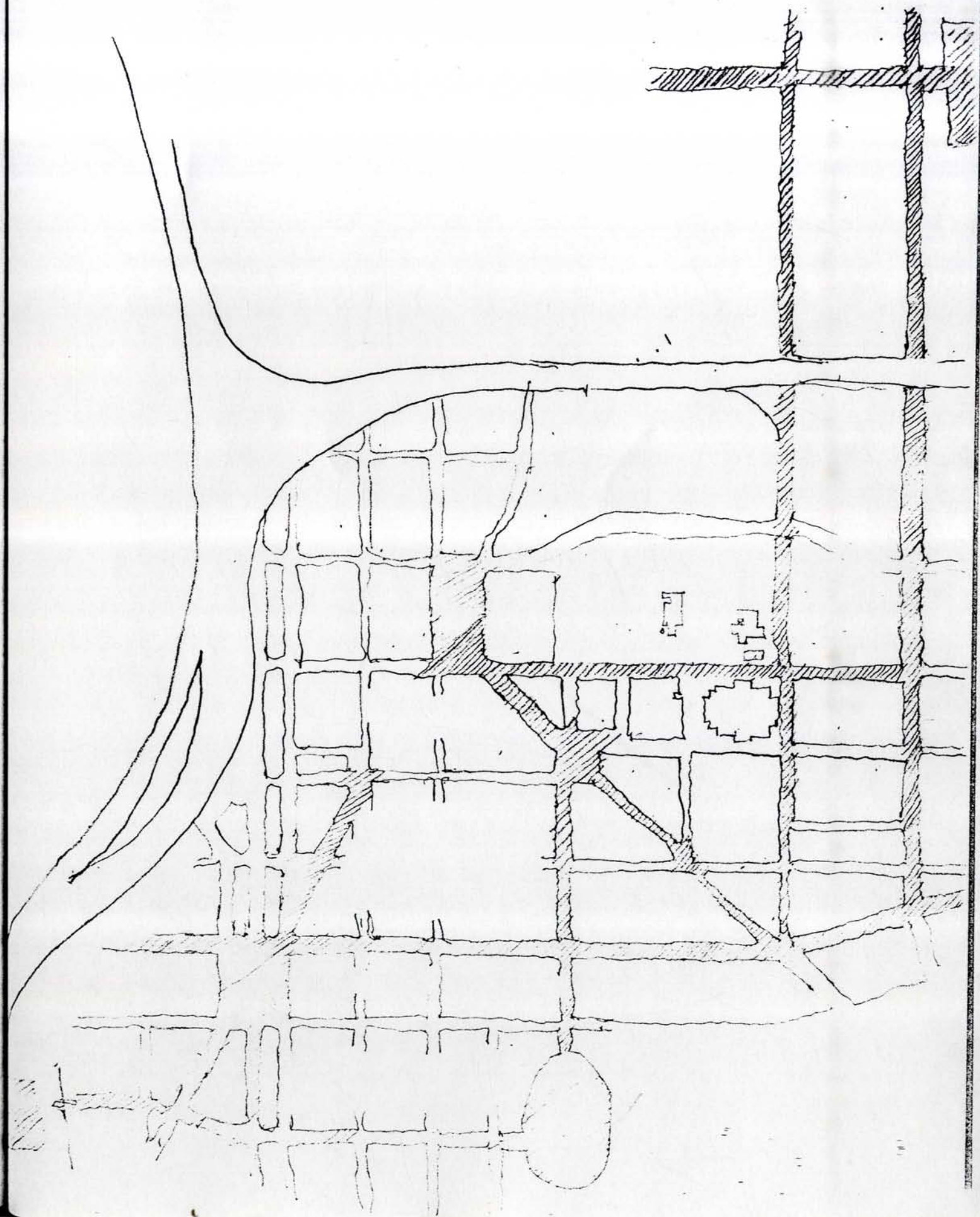
SITE

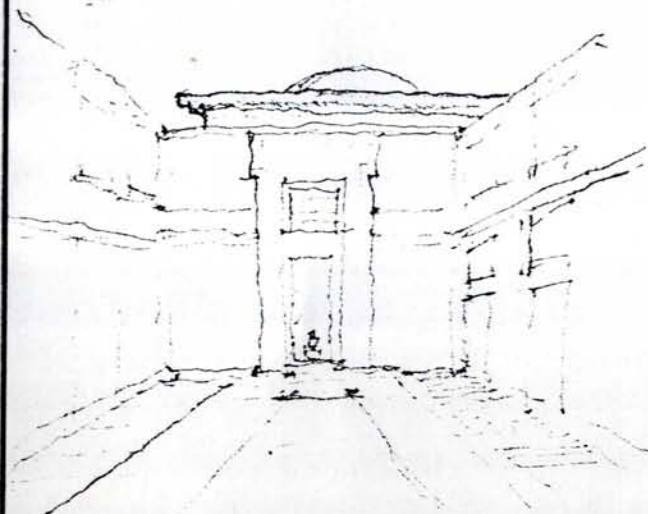
RESIDENTIAL ZONE



ADD ACENT
BLDG'S (HYPOTHETICAL)
DO NOT ADDRESS THE
STREET

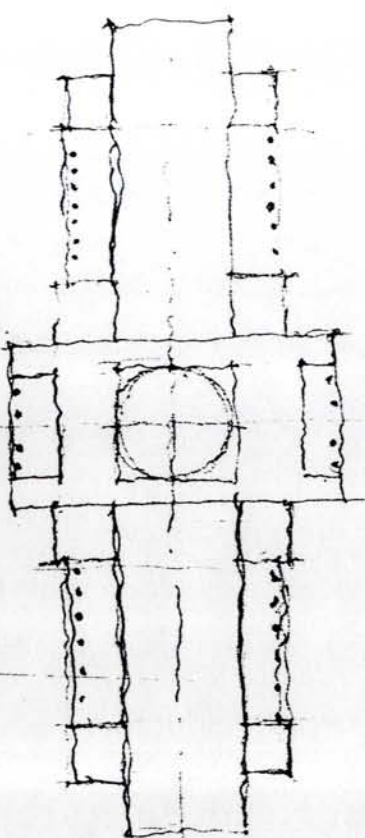




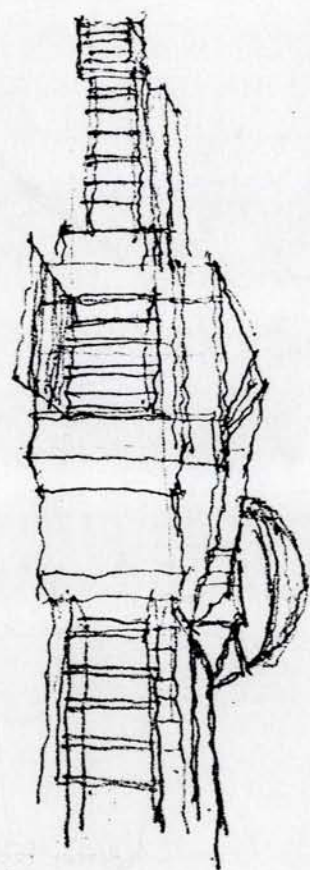
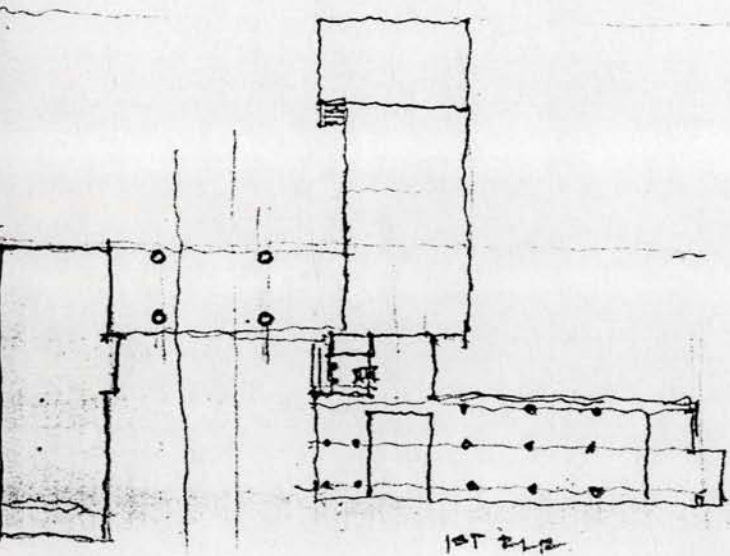
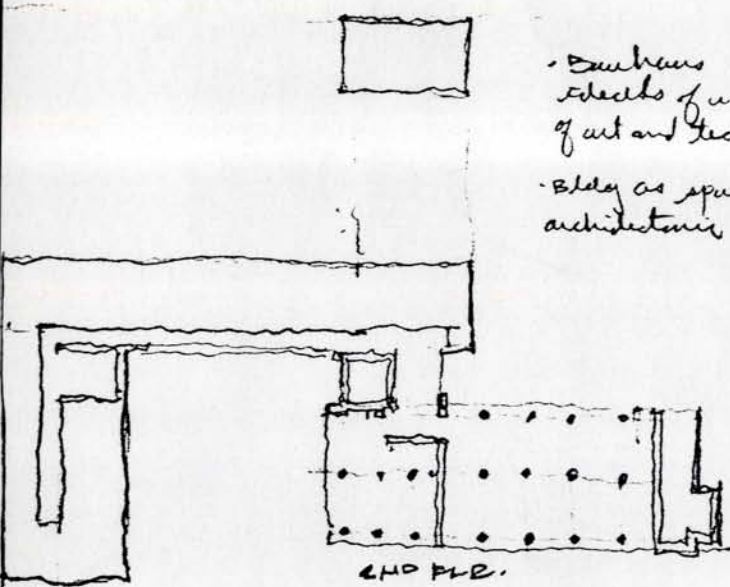


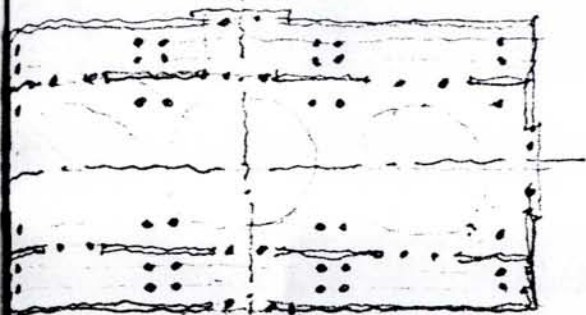
Thoreau House Museum Concept 1989-93
MGB BINDERBELL

CHICAGO WOODS PAPER FINE ARTS BUILDING, 1992-3

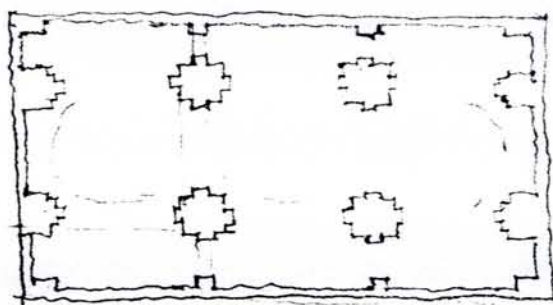


- Emphasizes aspects of integration of art and technology
- Bldg as space maker architectural value.

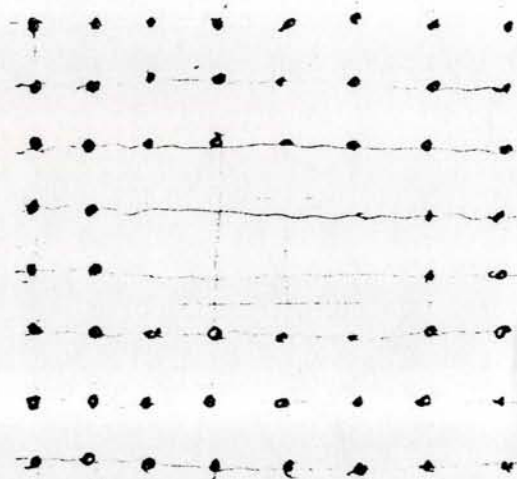
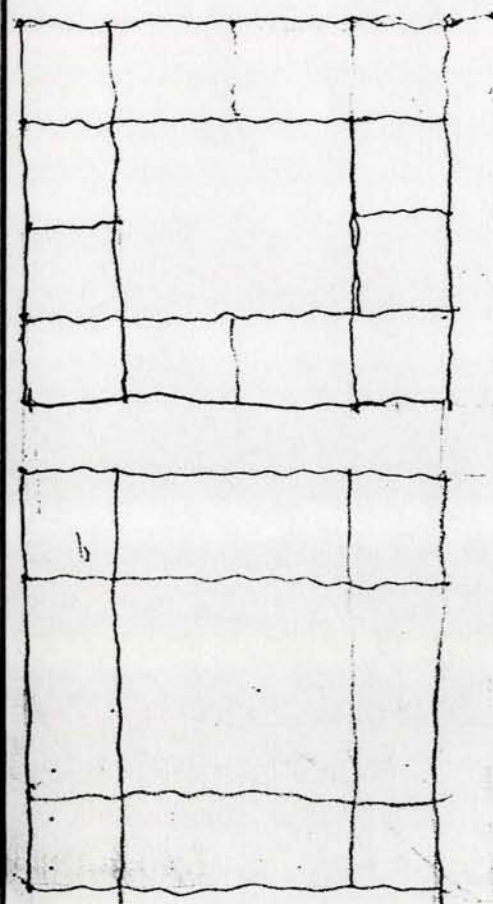
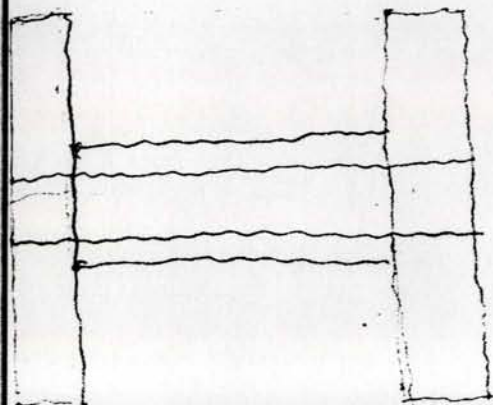




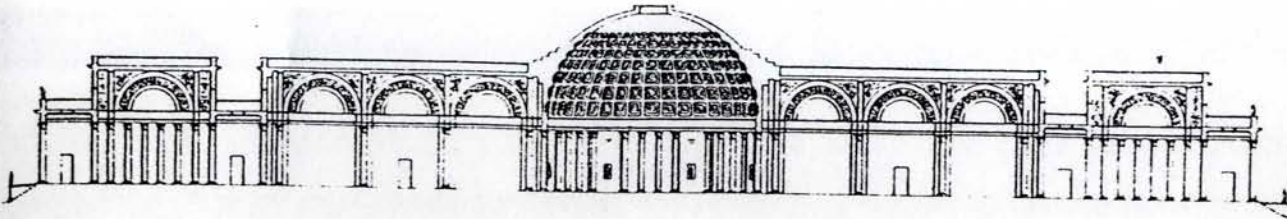
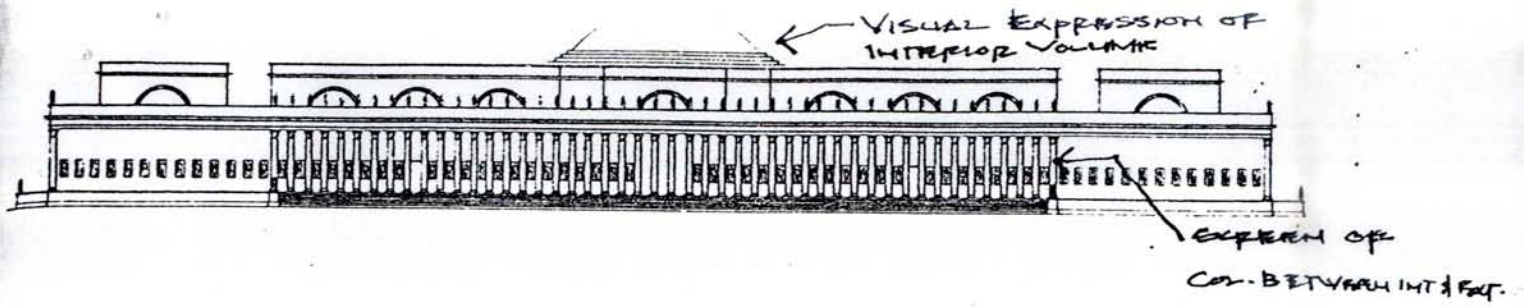
HO VON KLIMKE MÜNCHEN EGYPTEN
1916-20



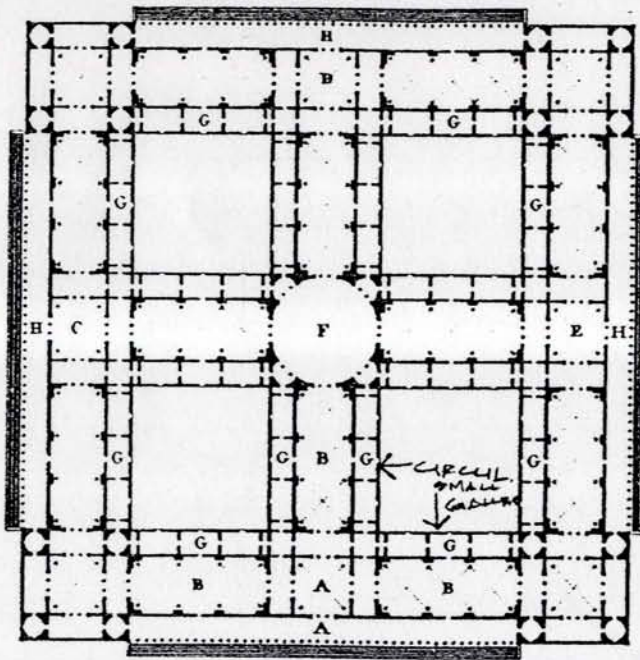
J. H. L. DURAND GALLERIES.



- MODERN NATURE OF DURAND'S TYPOLOGY. INTEREST AND EMPHASIS ON THE CONSTRUCTIONAL ASPECTS. — PRIMITIVE ART
- INTEREST IN ARCHITECTONIC ELEMENTS THE CRAFT OF BUILDING AND EXPRESSION OF THE STRUCTURE
- AESTHETIC.

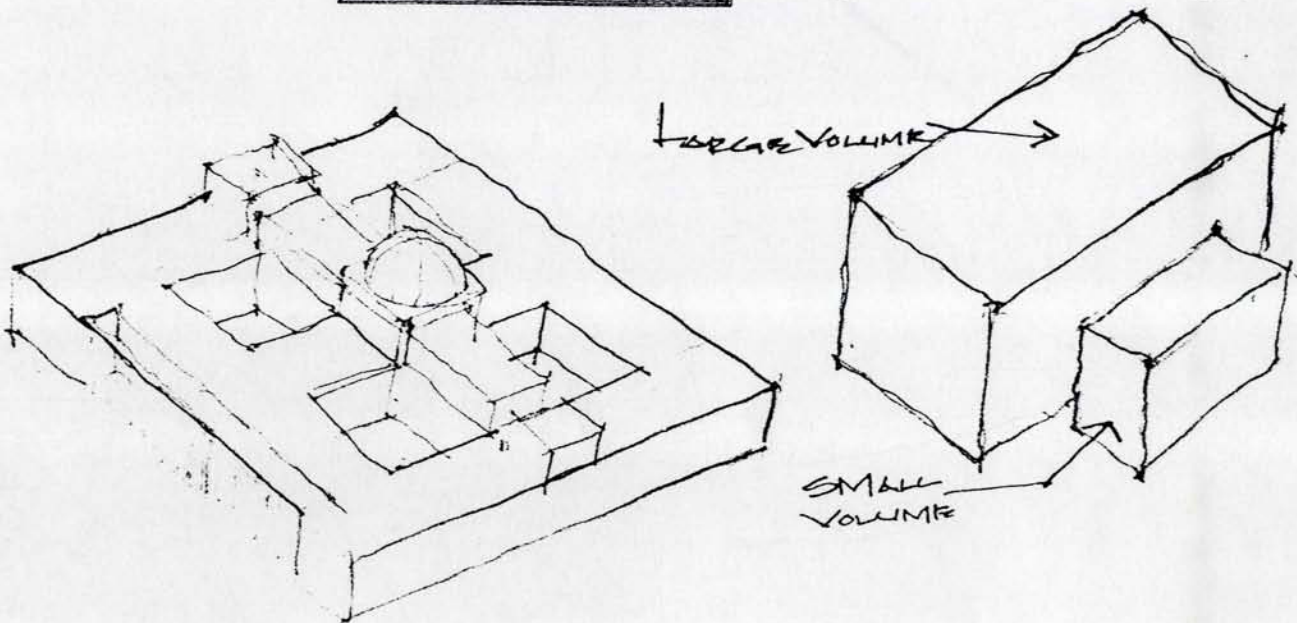


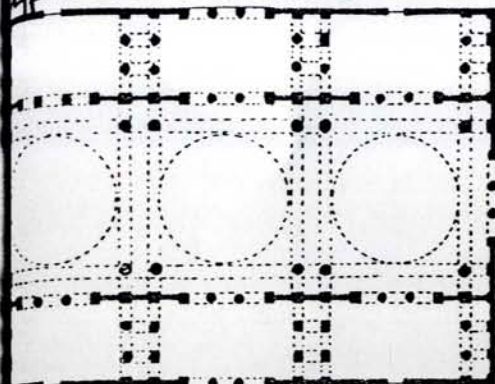
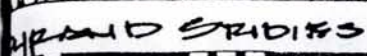
- A. Porche à Visabule.
- B. Salles d'exposition annuelles
- C. Salles de Peinture.
- D. Salles de Sculpture.



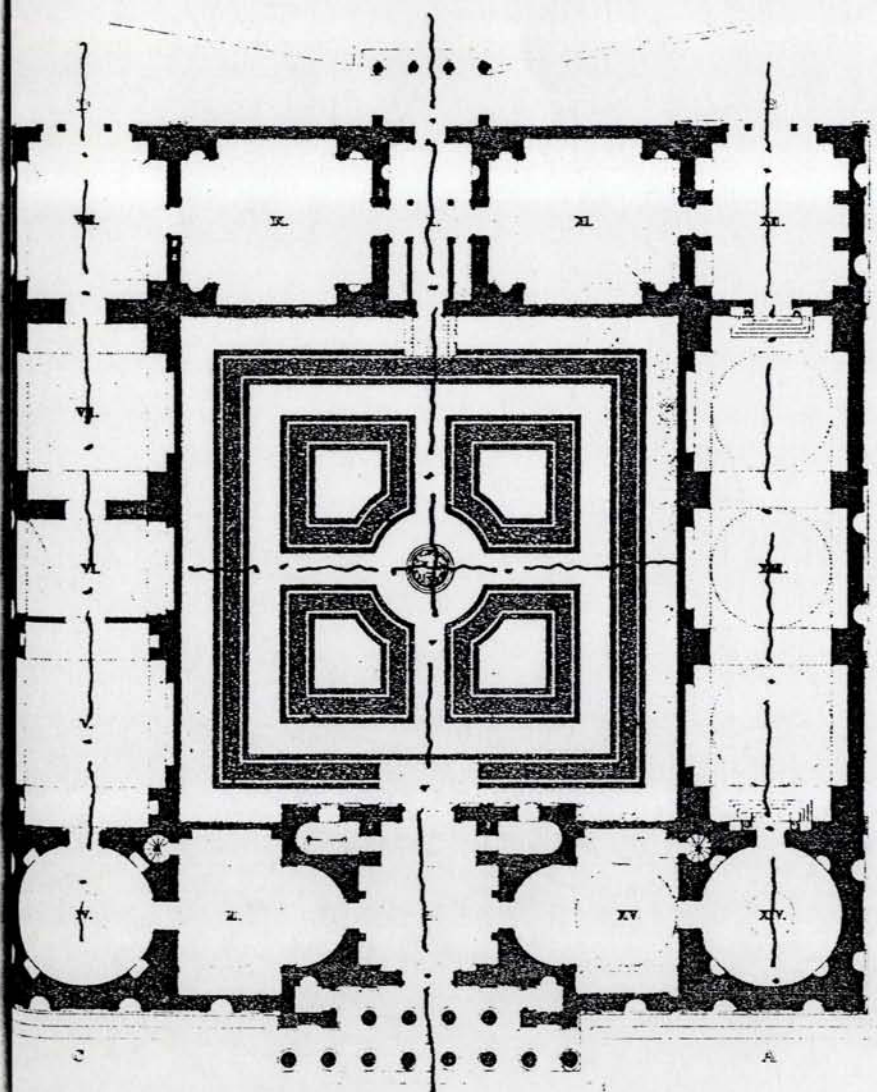
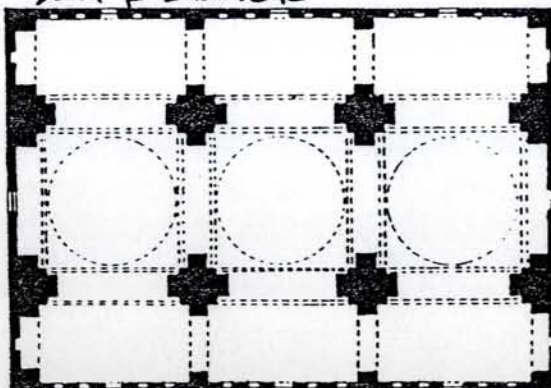
- E. Salles d'Architecture
- F. Salle de Réunion
- G. Cabinets des Artistes
- H. Entrées particulières

DURAND



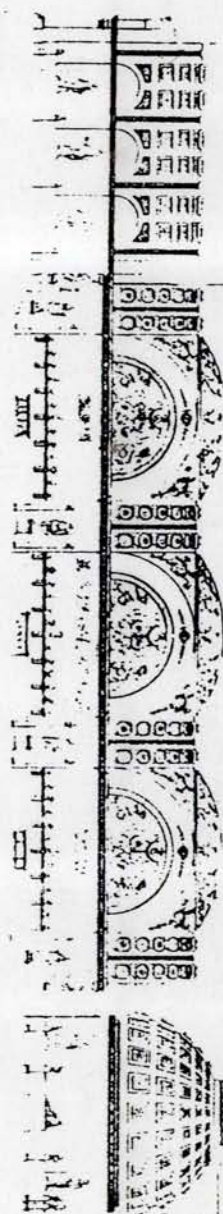


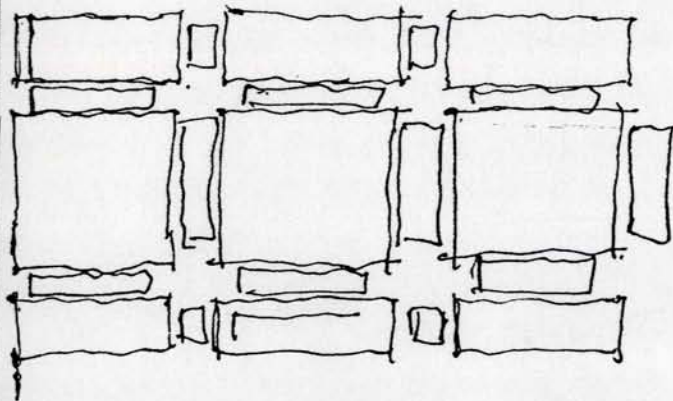
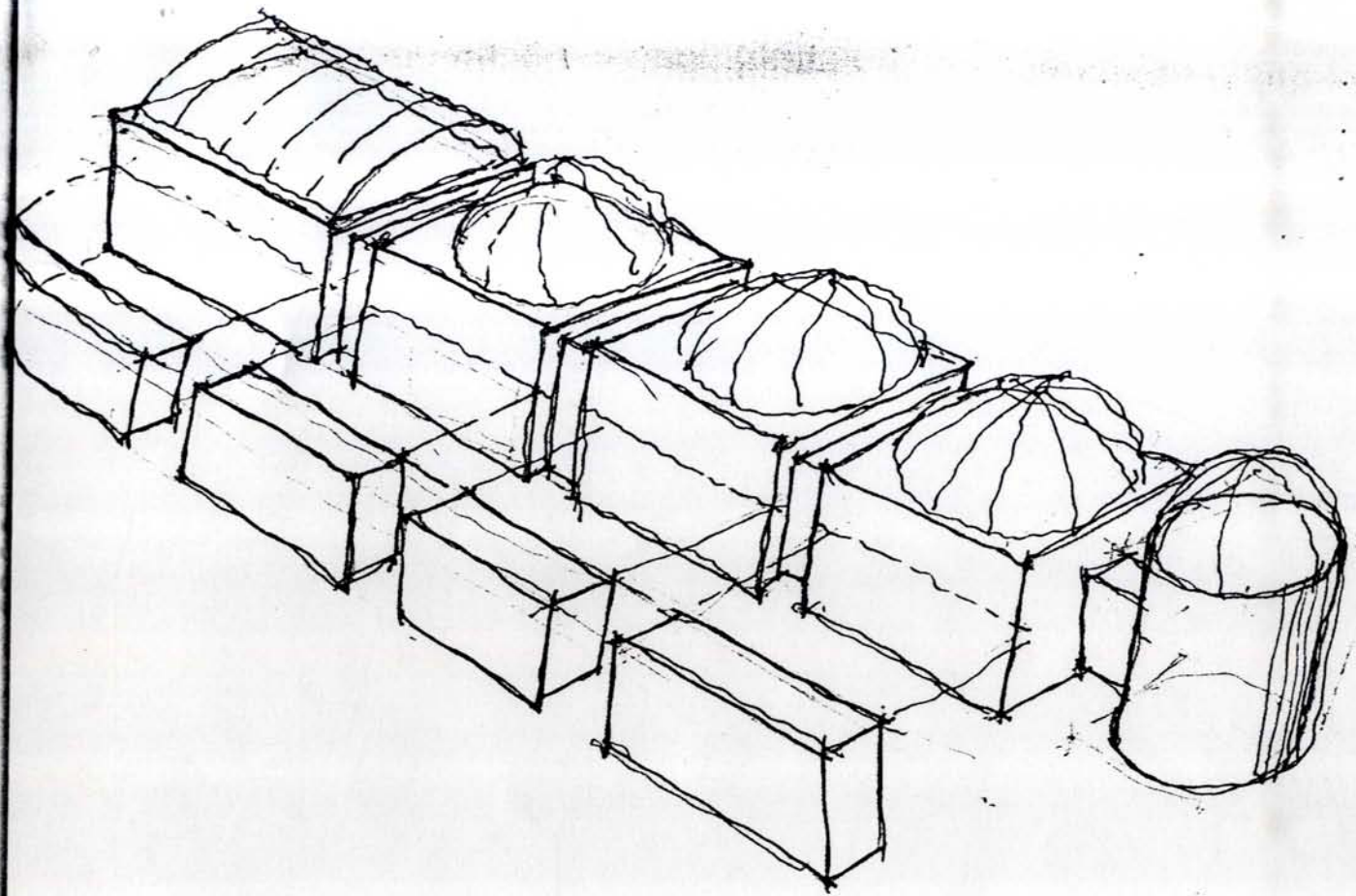
VON KLENZE



PLSH GLYPHOTEK:

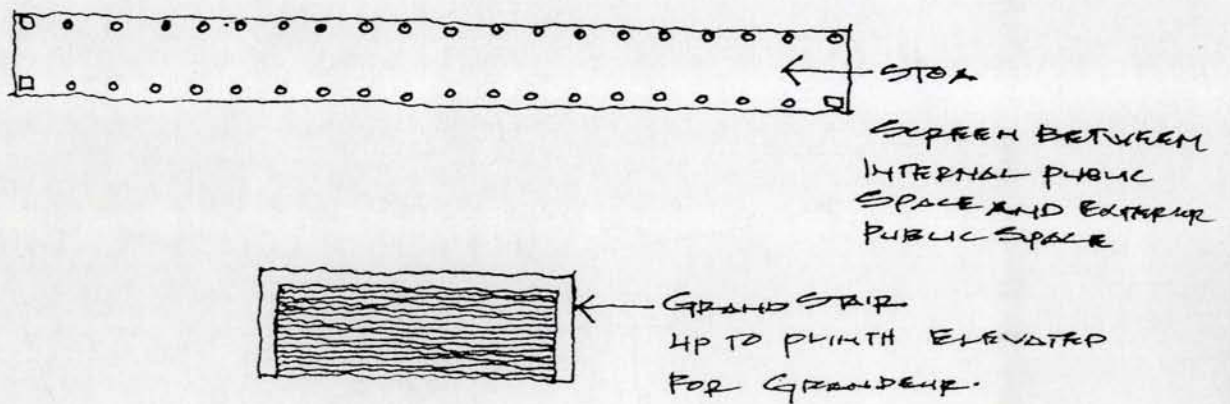
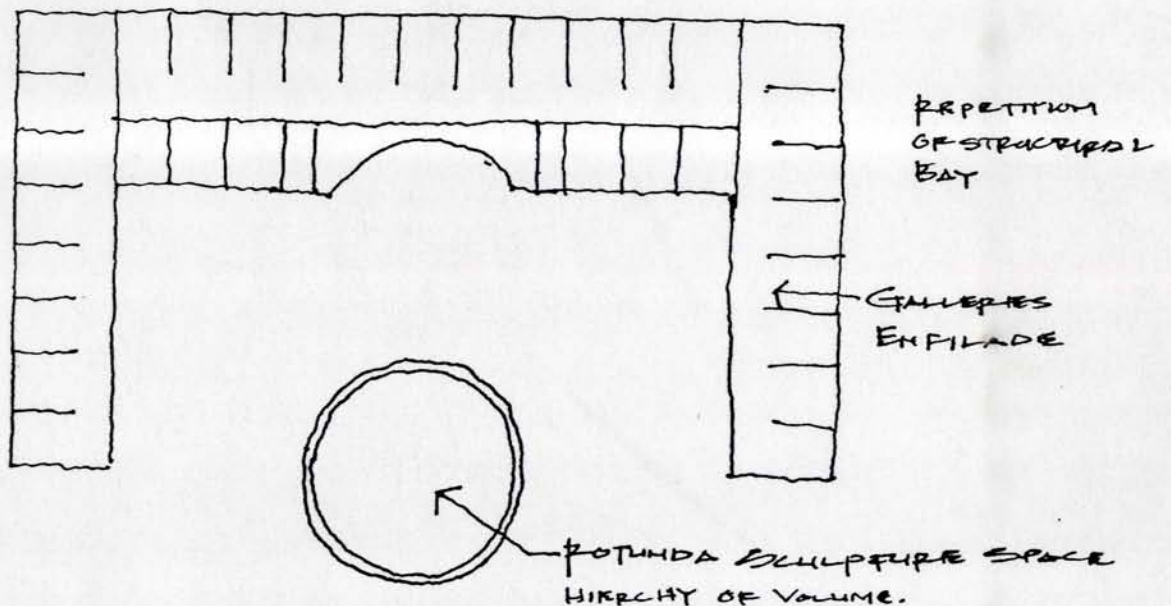
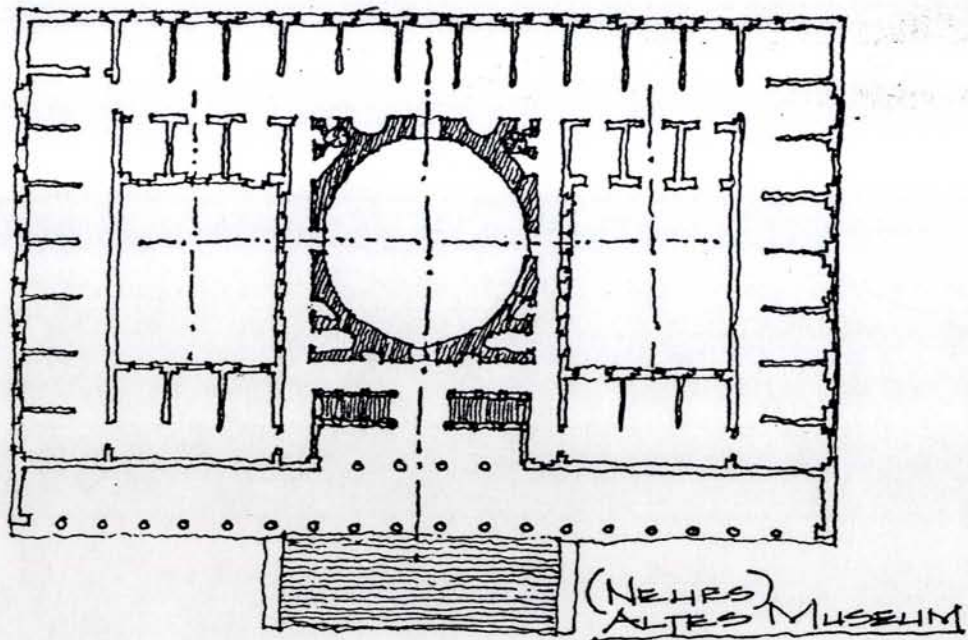
Section
GALYPTOTHEK Von KATZENBE



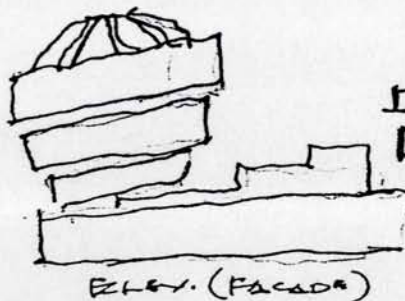
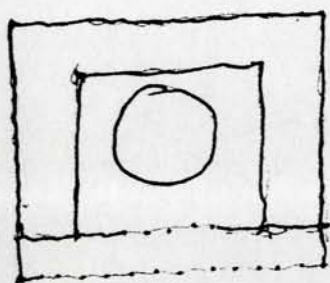
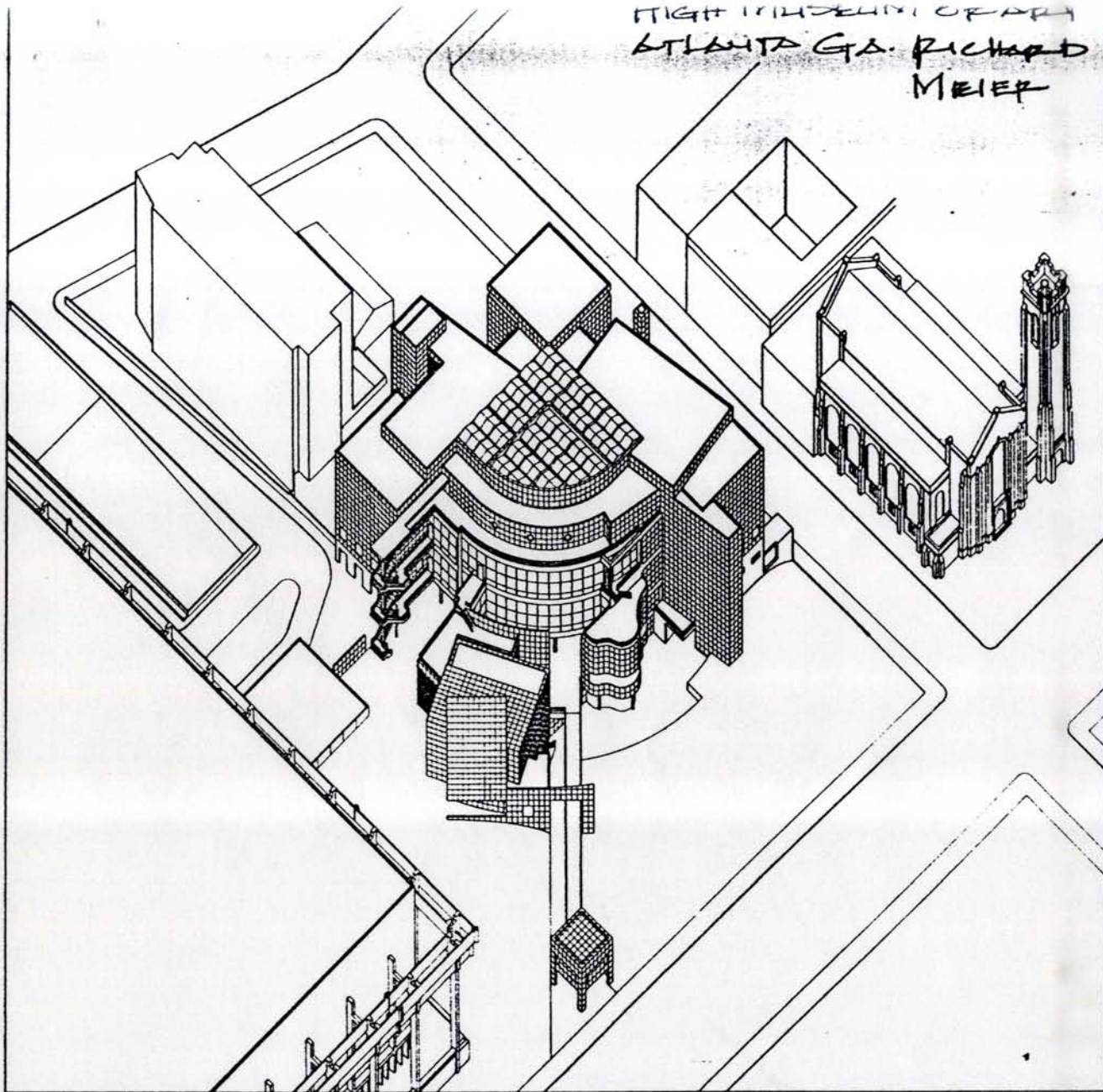


VOLUMETRIC ANALYSIS
 DUPOND, VON KLENZE
 (GLYPOTHEK)

PART SIMILAR TO AIR & SPACE
 EXCEPT FOR SOLID VOID RELATIONSHIP



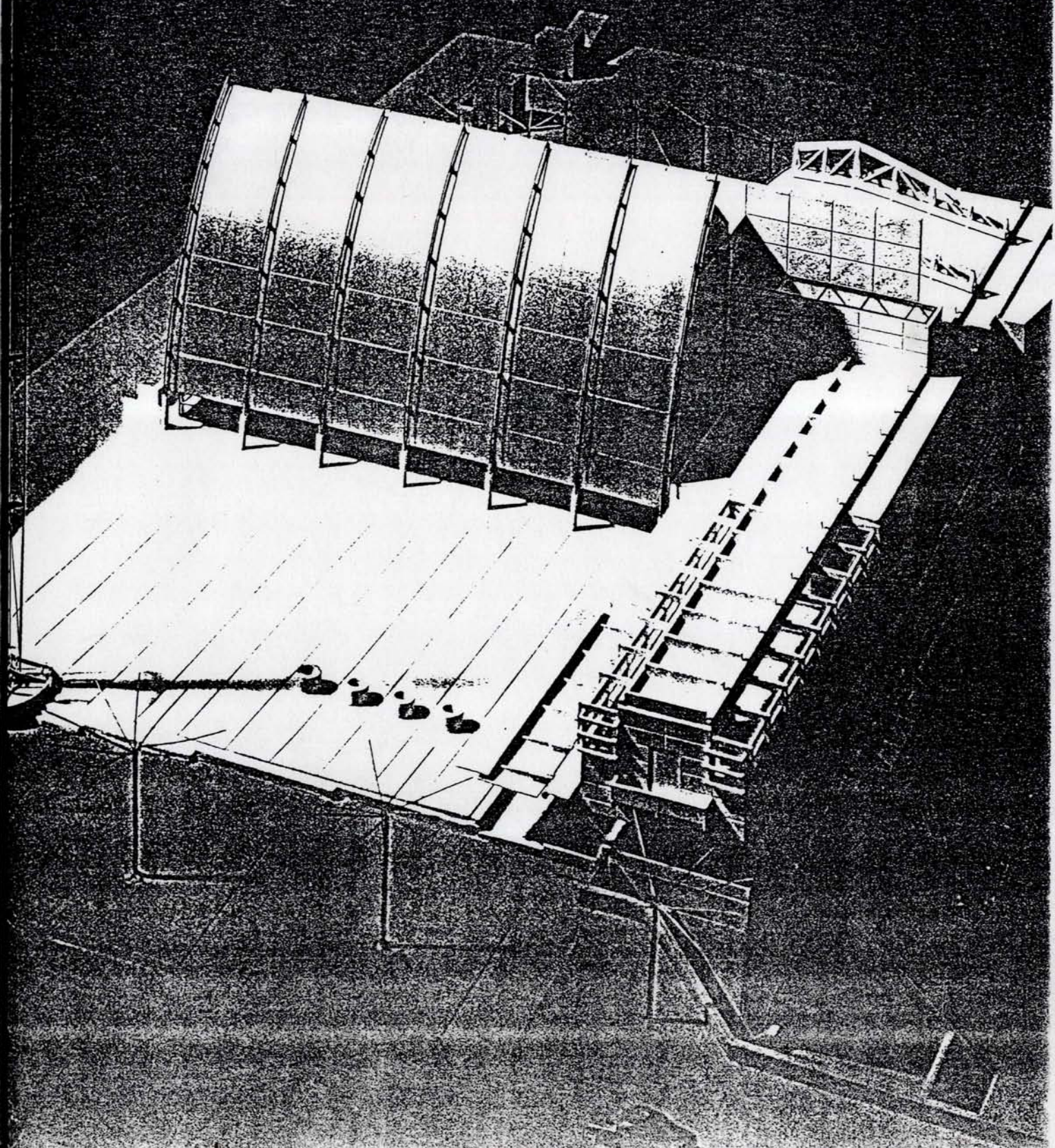
HIGH MUSEUM OF ART
ATLANTA GA. RICHARD
MEIER

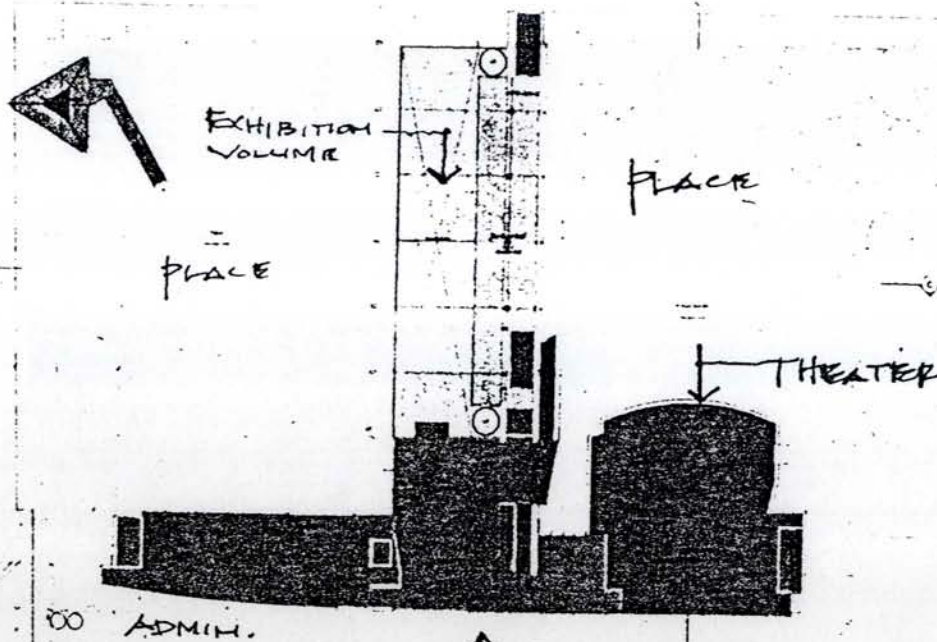


HIGH
MUSEUM.

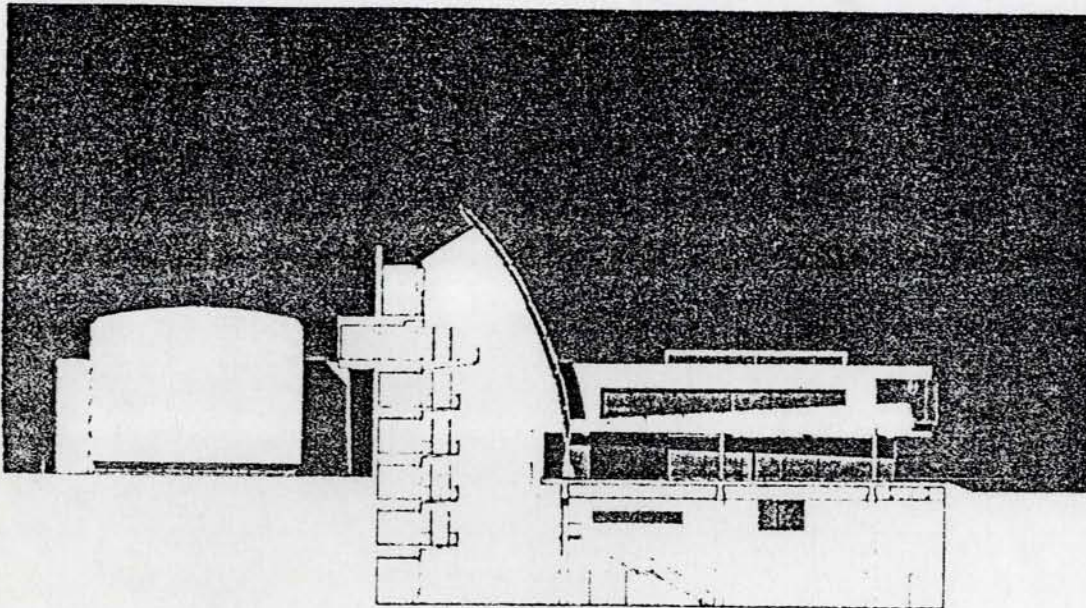
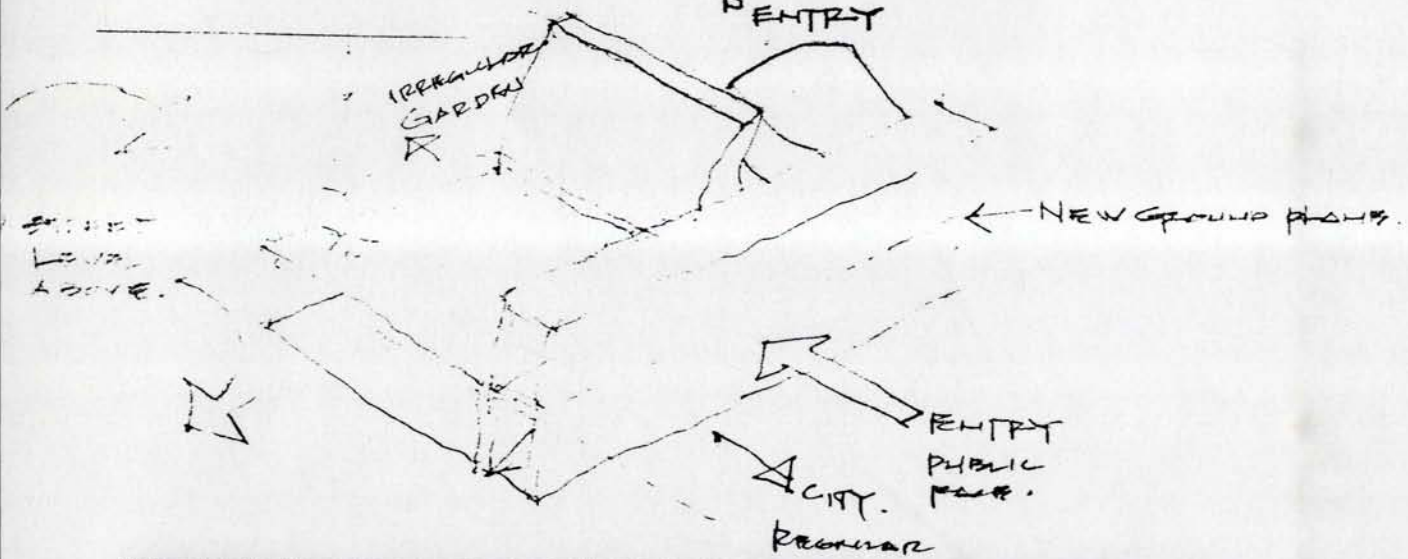
- COMBINES NOTIONS OF TRADITIONAL MUSEUM - I.E. ENFILADE GALLERIES AND ROTUNDA BEGINS TO EXPRESS SEPARATE FUNCTIONS & SEPARATION OF AUDITORIUM FROM MAIN BODY. EXPRESSES DISCONTINUAL FORMS EXTERIOR SPACE. TAKES NOTION OF STAGE SET FROM SCHINKLE. PICTURESQUE VIEW.

INVESTORS MUSEUM
ACRON OHIO
POLSHAK & ASSOC.

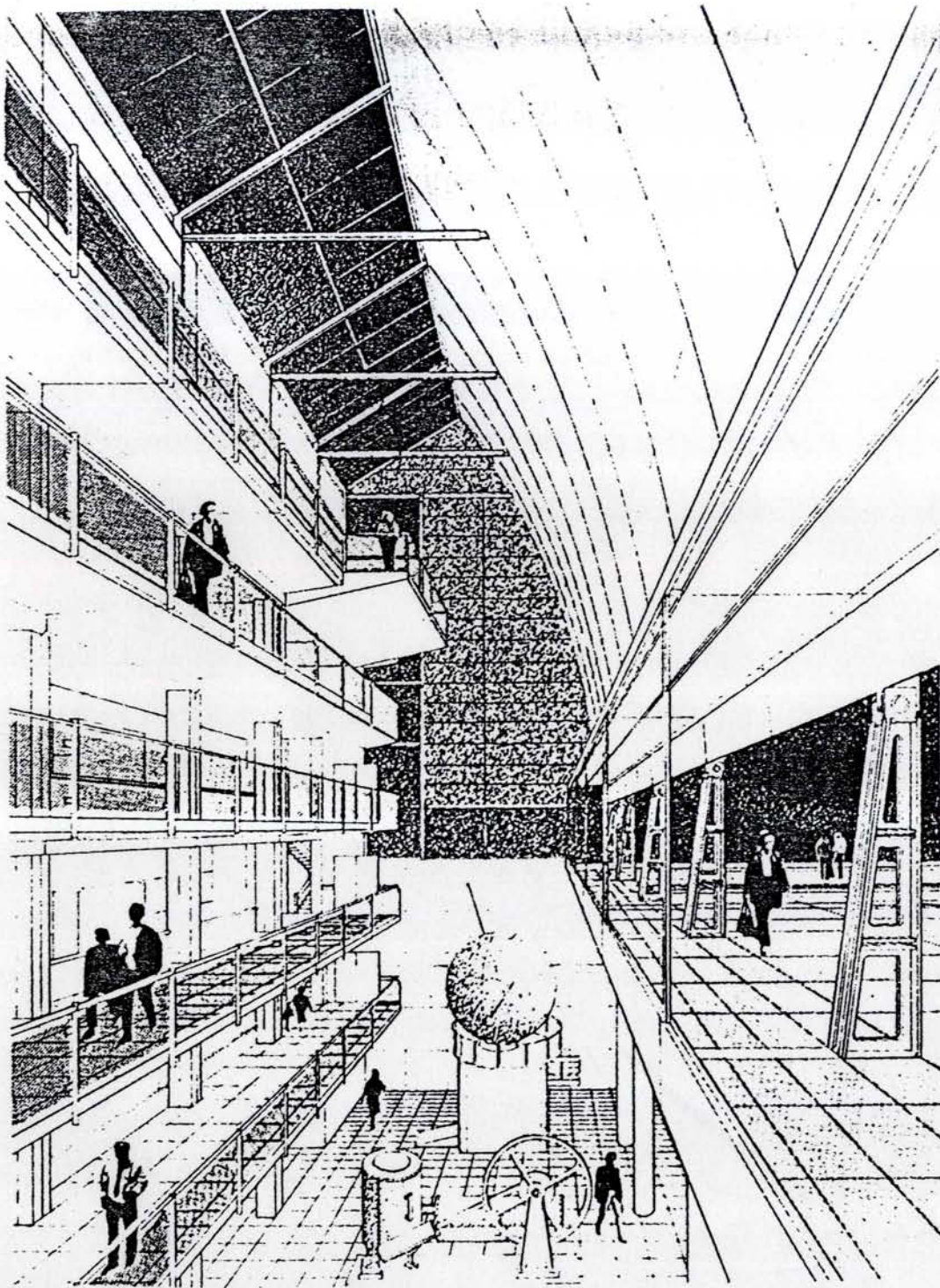




• PLACE NOT AT GRADE DOESN'T ADDRESS THE STREET AT PUBLIC ENTRY.



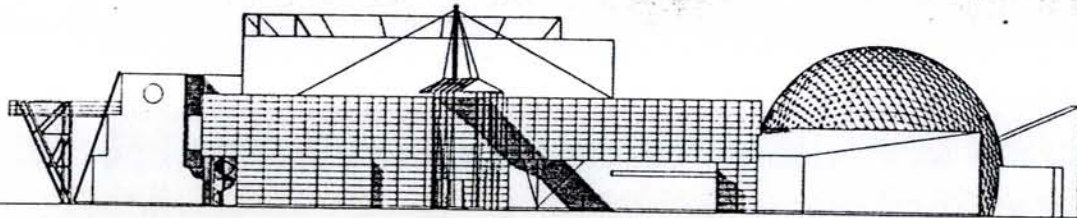
INVENTORS MUSEUM
ACRON OHIO
POLSTER & ASSOC.



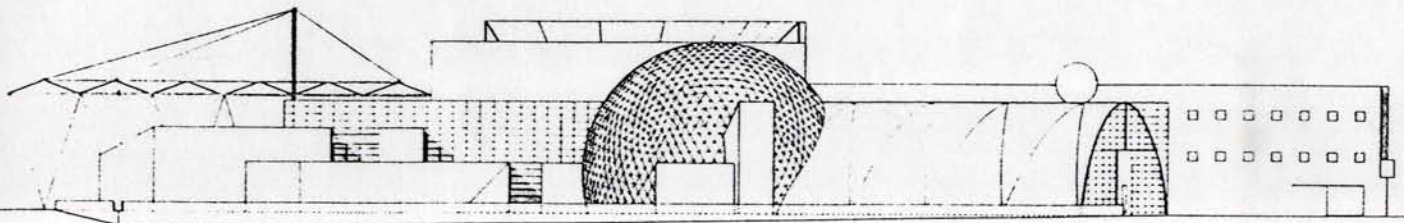
INTERIOR PERSPECTIVE
INVENTORS MUSEUM
SPRON OHIO
POLSHAK & ASSOC.

- MORE ABOUT DISPLAY OF HISTORICAL ARTIFACT AS OPPOSED TO INTERACTIVE.
- DOES HAVE SOME EXPERIMENTAL EQUIPMENT & EXHIBITS.
- ARCHITECTURE EXPRESSES AESTHETIC NOT HIGH TECH, BUT ARCHITECTONIC.

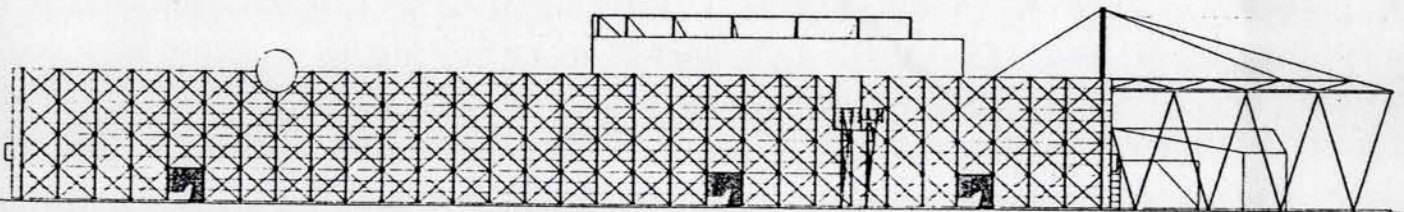
West elevation. 西立面图。



South elevation. 南立面图。

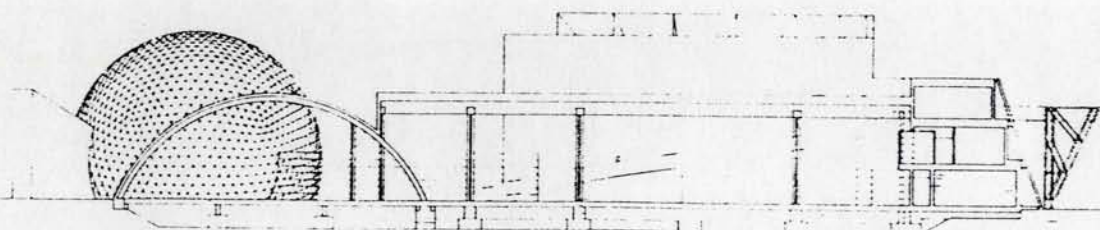


North elevation. 北立面图。

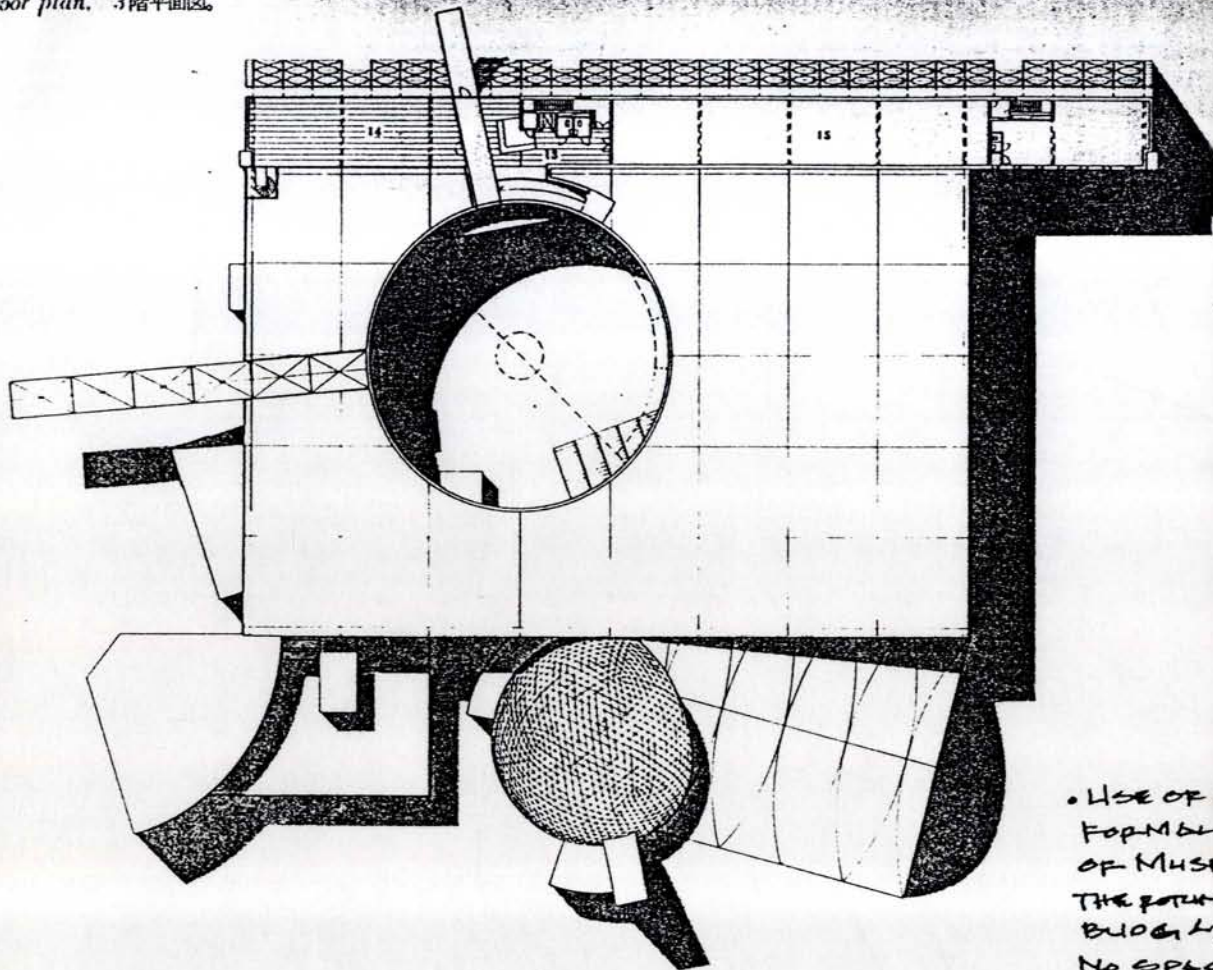


Section. 断面图。

* LITERAL EXPRESSION
OF PROGRAM.

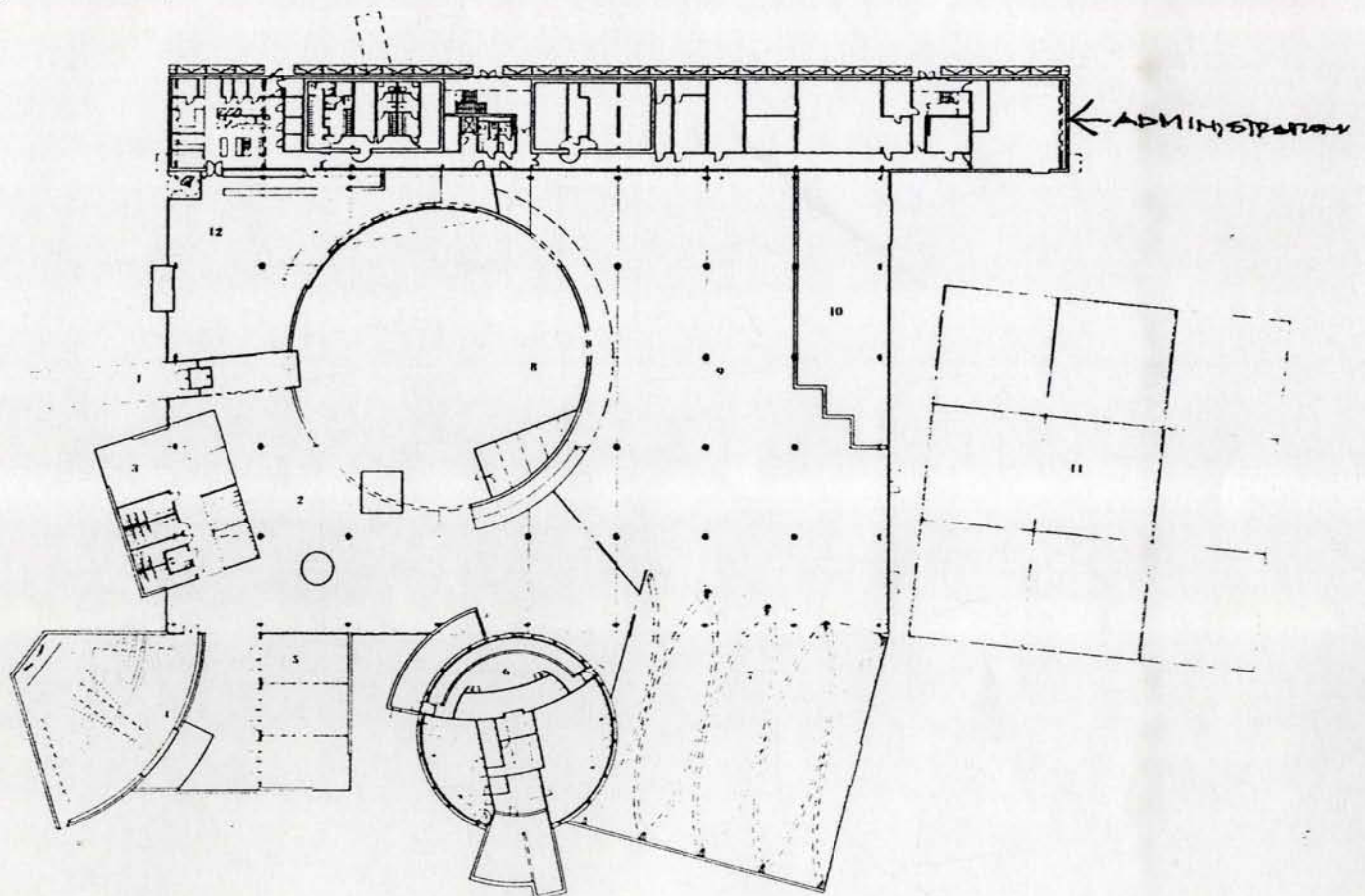


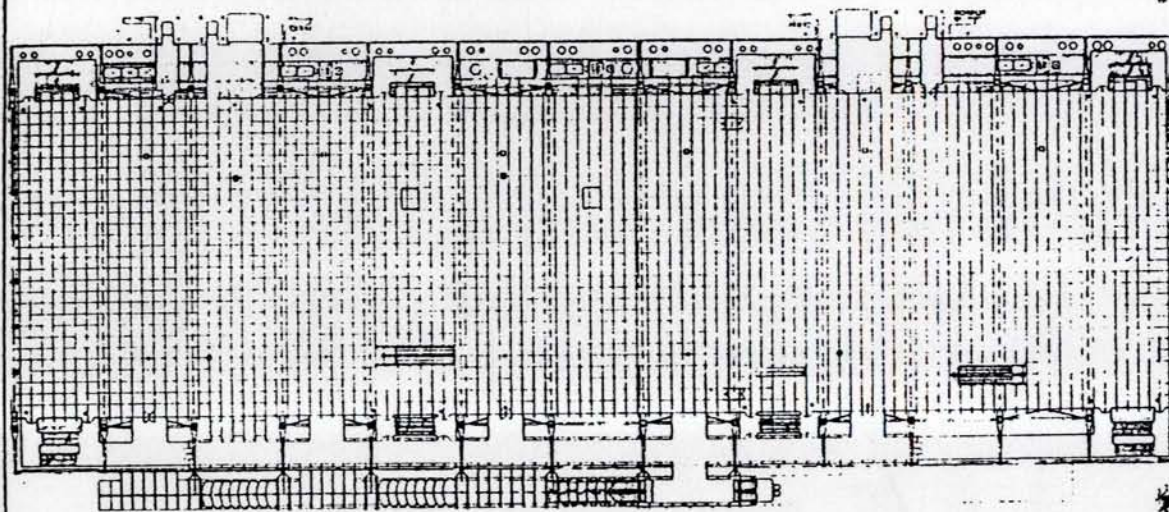
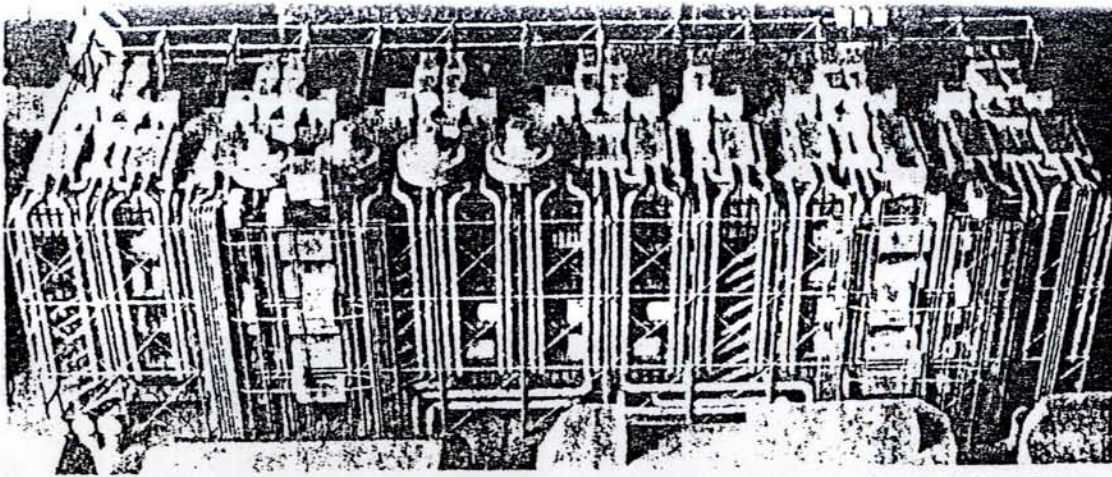
3rd floor plan. 3階平面図。



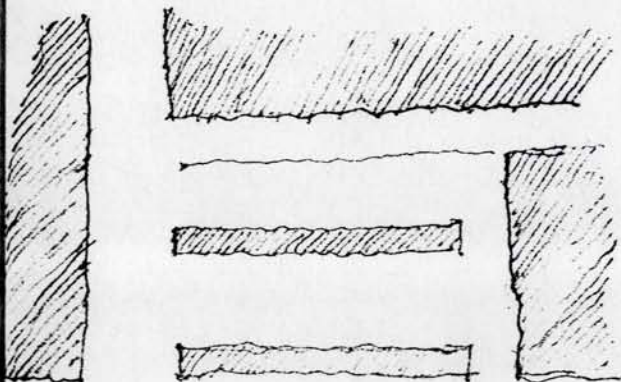
• USE OF SOME OF
FORMAL ELEMENTS
OF MUSEUM -
THE ROUNDO - BAR
BLOG ATTACHED
NO SPECIAL PLAY
BETWEEN VOLUMES.

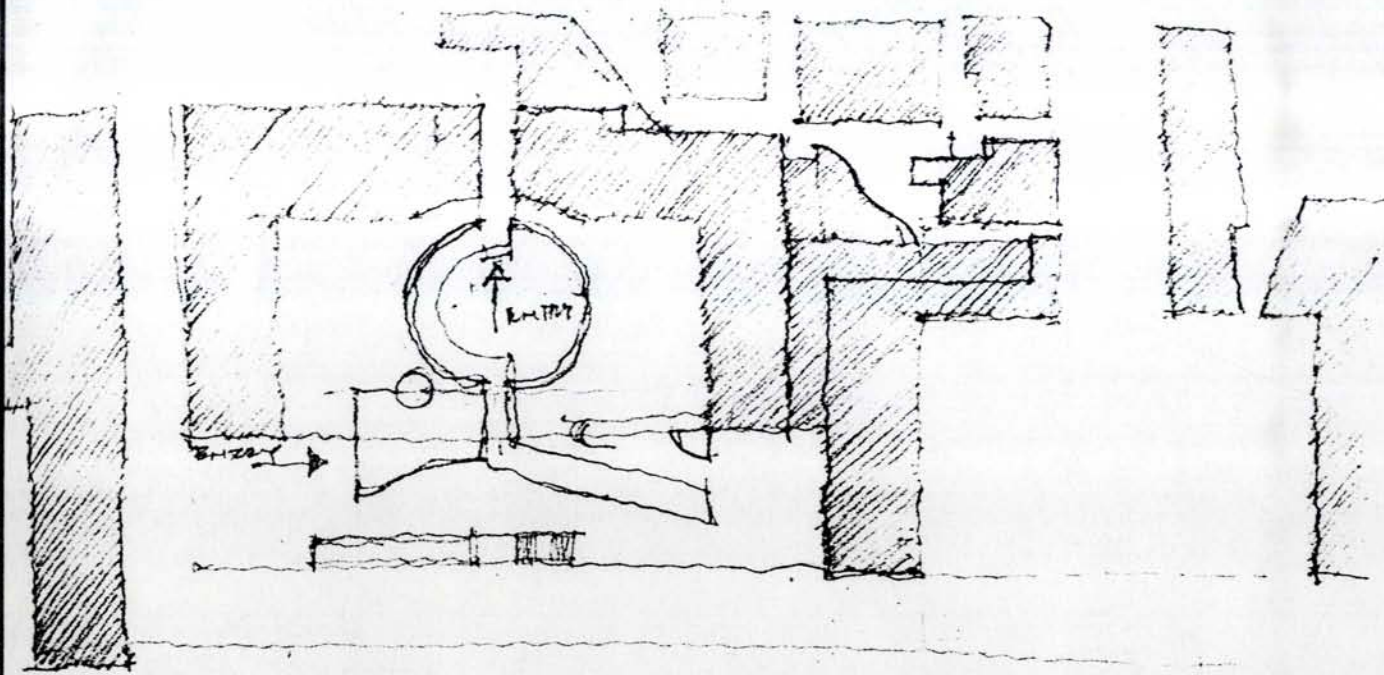
Ground floor plan. 1階平面図。





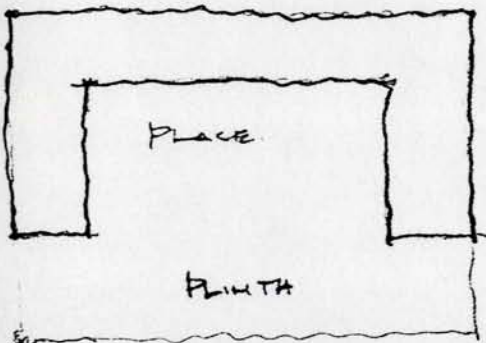
- MULTIFUNCTIONAL
- CIVIC CENTER
- OBJECT BUILDING AND STAIR
MAKER - EXHIBITION HALL
- BLDG NOT PROGRAM SPECIFIC
- SHAPES URBAN PLACE.



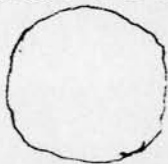


MUSEUM AS PLACE

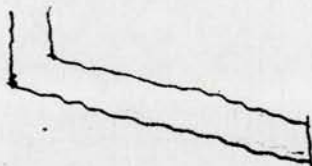
BREAKS AWAY FROM TRADITIONAL
SUPER BLOCK.



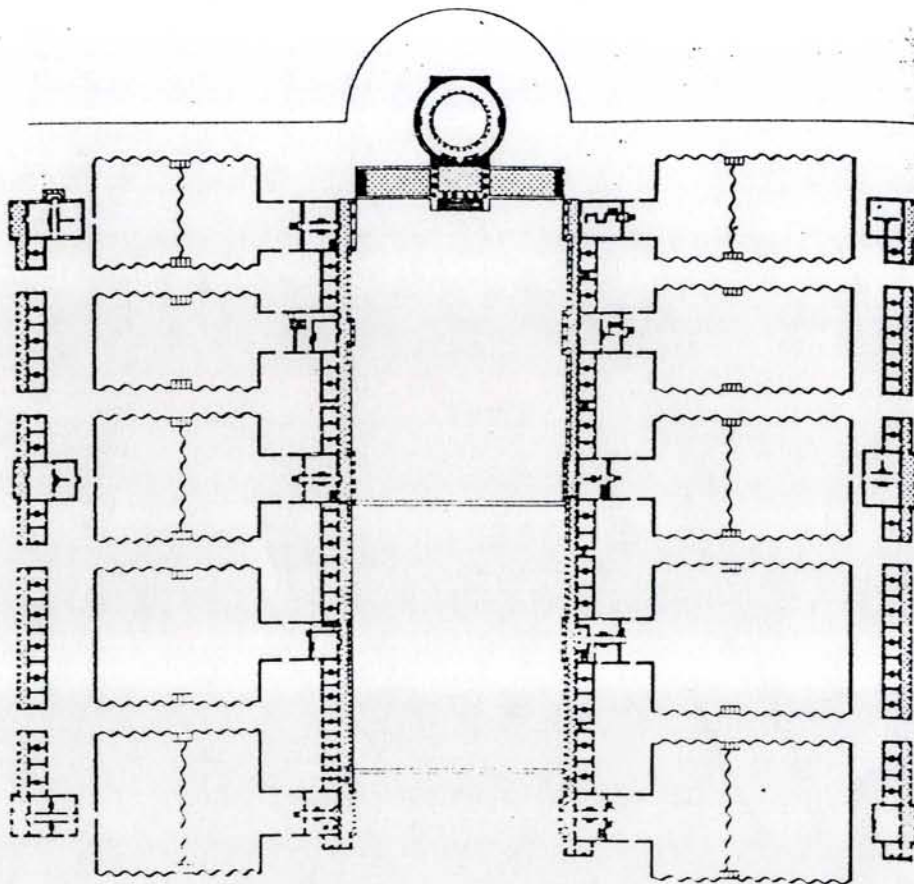
TRADITIONAL GALLERIES
FILIPINO SPACE.
• SCALE
• MORE INTIMATE



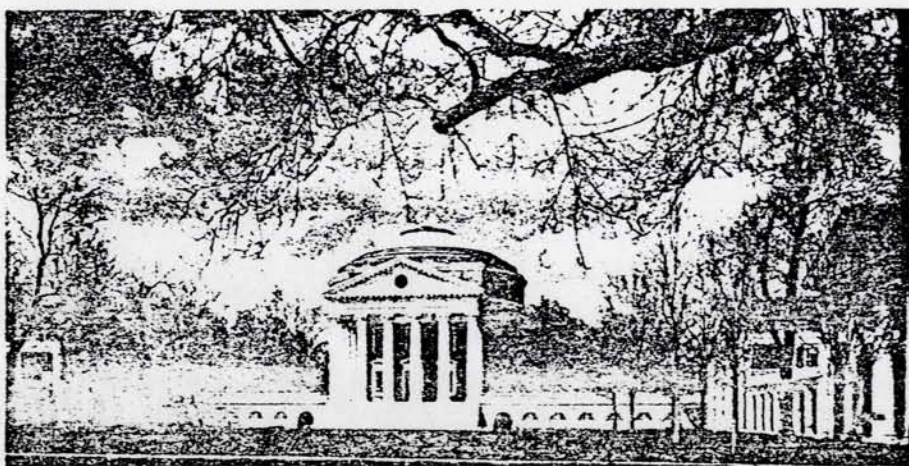
TRADITIONAL POT HOLE
FOR DISPLAY OF
SCULPTURES
USE AS PLACE. PITCHED GROUND PLANT
FACING WEST → DIENT, PIZZLE PABLOCO



TRADITIONAL GRAND
STRIP:



71 and 72. Thomas Jefferson: Charlottesville, Va, University of Virginia, 1817-26



DIDACTIC NATURE OF ARCHITECTURE
FORMATION OF PLACE.

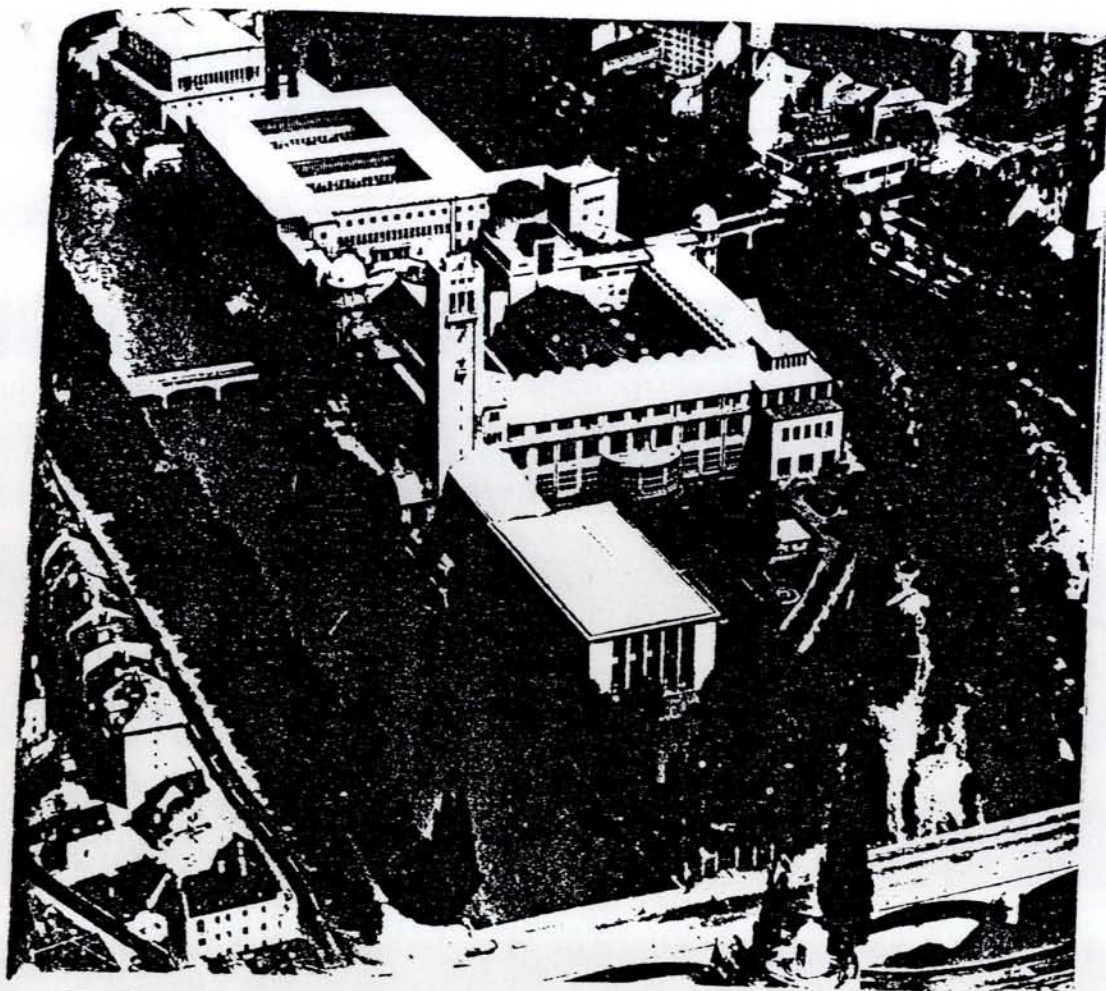
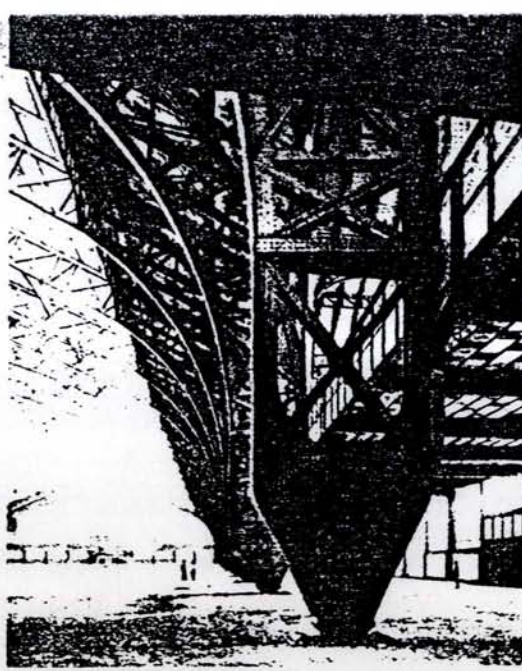
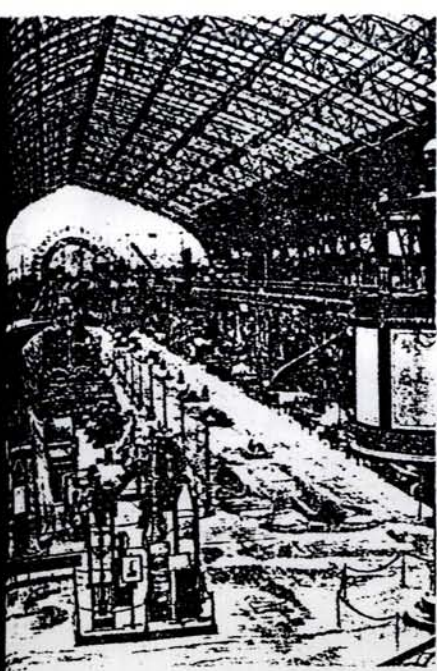
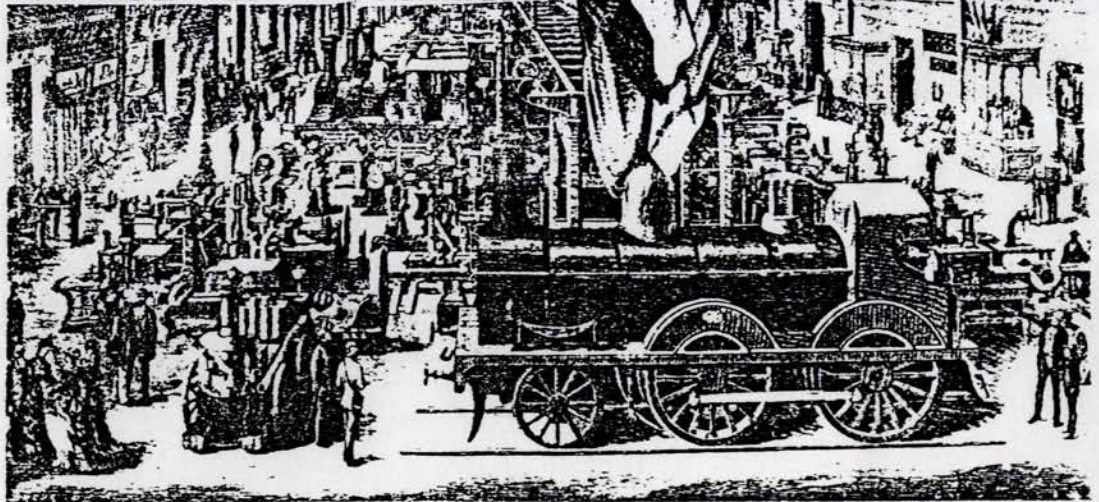
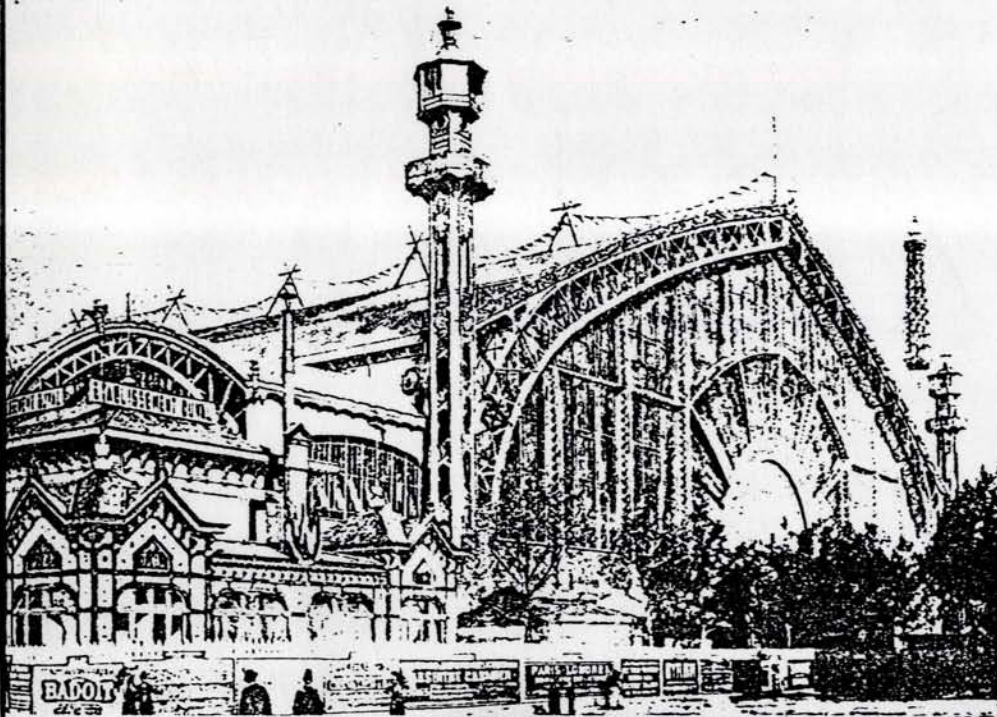


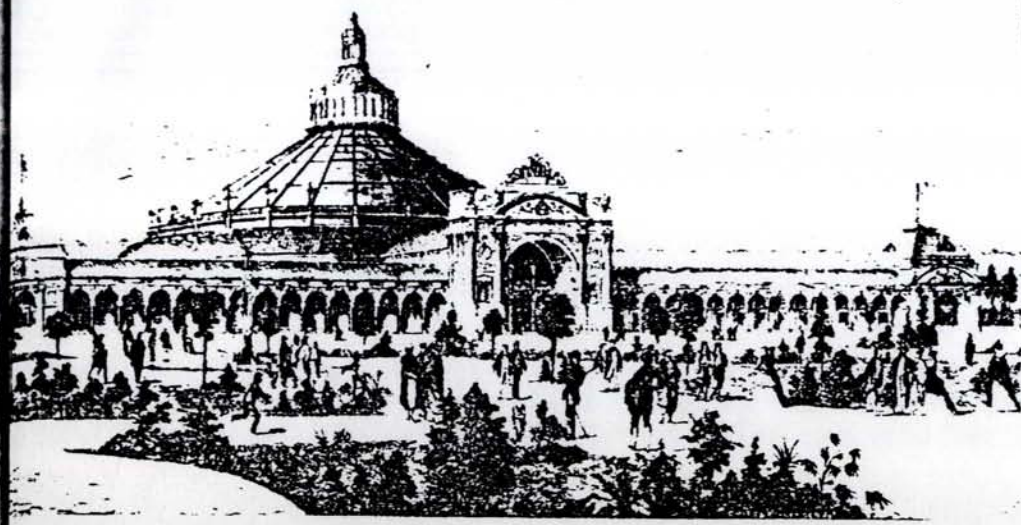
Fig. 35. The Deutsches Museum, Munich, 1977. From the air, a panoramic view of the three buildings of the Deutsches Museum. *From bottom: museum, library, and conference center.* (Courtesy of the Deutsches Museum, Munich.)



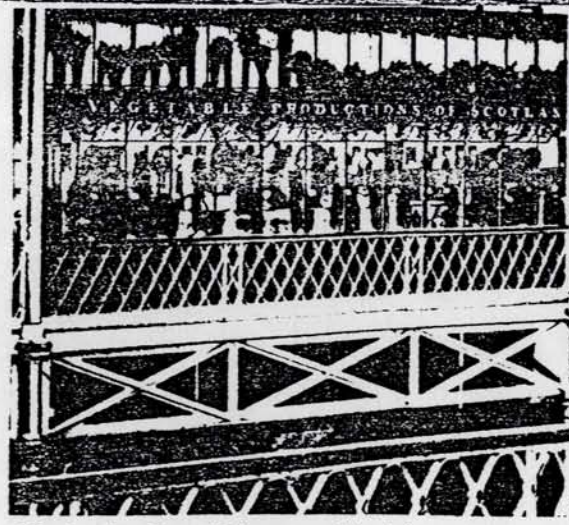
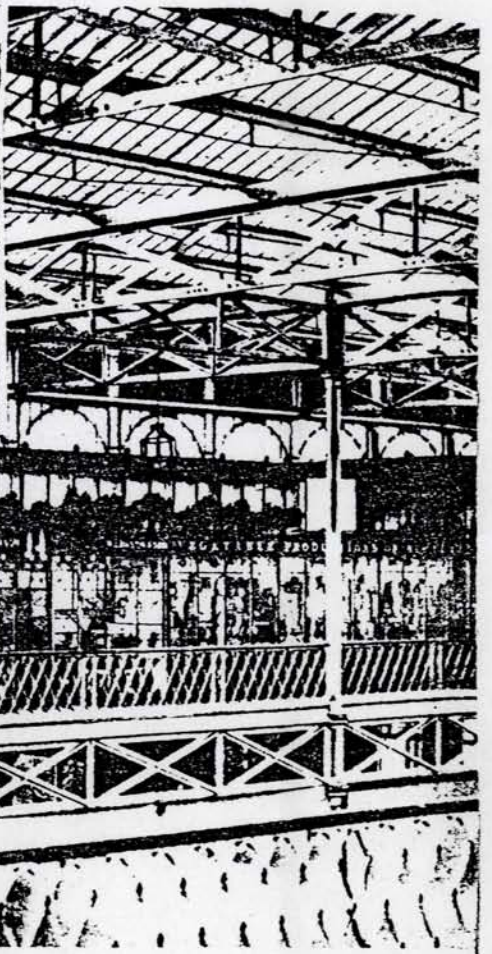
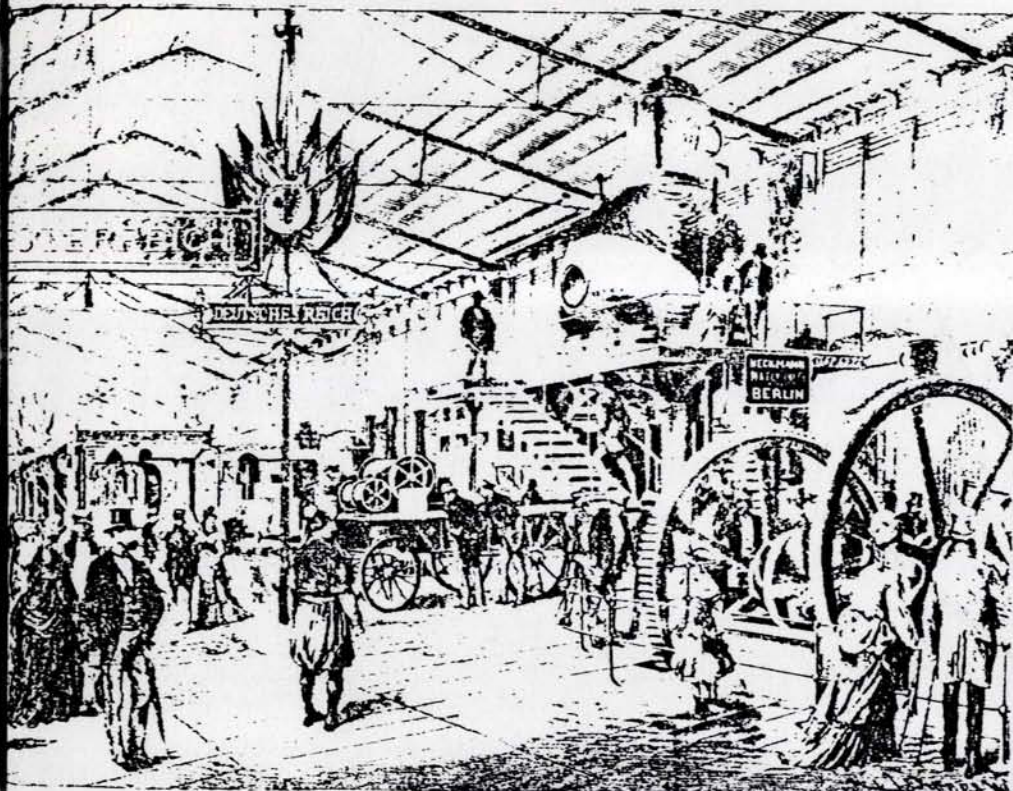
123 Paris, La Galerie des Machines of 1889 (from Figaro- Exposition, from Parigi e l'Esposizione del 1889 by Treves, from Giedion, Space, Time and Architecture)

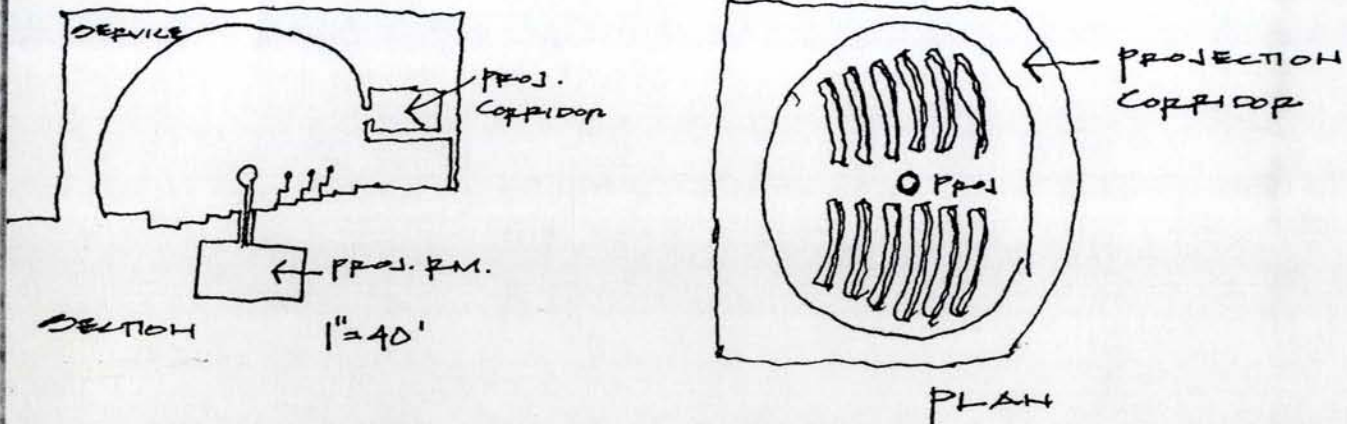


119, 120 Paris, La Galerie des Machines of 1878 and a general view of the exhibition (from L'Esposizione di Parigi del 1878 illustrata, Sonzogno)



Vienna, 1873 exhibition (from L'Esposizione universale di Vienna del 1873 illustrata, Sonzogno)



OMNIMAX THEATER

The dome is constructed of aluminum, and tilted at an angle of 20 degrees from the horizontal floor plane. The dome is perforated by holes $1/32"$ in diameter. The holes cover 28-35% of the dome surface. A catwalk, speakers, and HVAC ducts area located in the service area behind the dome. The perforations in the dome also serve to bring in HVAC and audio. The dome is suspended from the structure of the building. The maximum dome size is 65' in diameter.

The projector occupies the center of the dome's half sphere. The projector is operated from a remote projection booth beneath the tiered seating. The projection equipment must be water cooled. A corridor at the theater contains the "special effects" projectors, that project through ports at the rear of the space. The back wall can be straight or curved. The projectors are controlled and sequenced via a computer.

PLANETARIUM

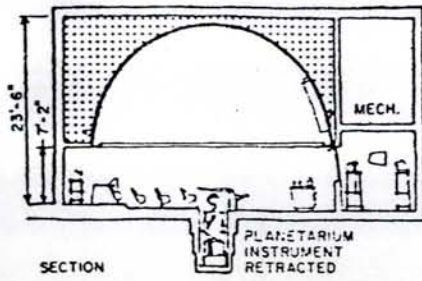


Fig. 95

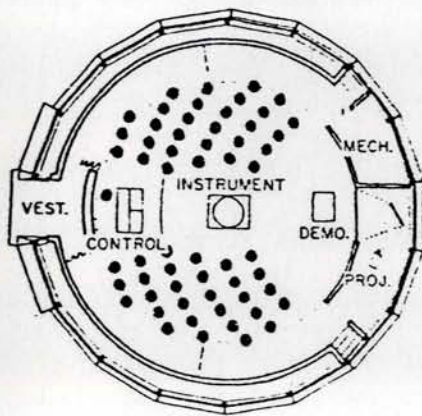


Fig. 97

PLAN

0 5 10 20

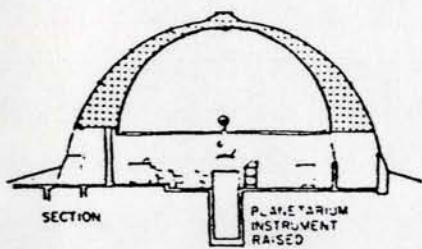


Fig. 96

Fig. 98

MUSEUM OF SCIENCE AND TECHNOLOGY

PROGRAM SUMMARY

A. ENTRANCE/ RECEPTION	3250SF
B. GALLERIES/ EXHIBITIONS	51500SF
C. AUDITORRIA/ THEATERS	15925SF
D. CAFE/ RESTRAUNT	4700SF
E. BOOKSTORE/ MUSEUM SHOP	1500SF
F. ADMINISTRATION	5375SF
G. LIBRARY	9623SF
H. PRODUCTION ROOMS	4750SF
I. SUPPORT FACILITIES	4650SF
J. CIRCULATION, MECHANICAL ECT.	24500SF
TOTAL S.F.	122500SF

PROGRAM LIST

A. ENTRANCE RECEPTION.

Lobby	1800sf
Ticket Booth	150sf
Information	150sf
Storage	200sf
Security	250sf
Coat Room	150sf
Public Rest Rooms 2 @ 225	450sf
Public Phones	100sf
TOTAL	3250sf

B. GALLERIES/ EXHIBITIONS.

Galleries	20000sf
Exhibition Halls 4 @ 6000sf	24000sf
Temporary Exhibitions	2500sf
Local Technology	2500sf
Special exhibits	2500sf
TOTAL	51500SF

C. AUDITORIA/ THEATERS.

-Auditorium for 300 persons fixed seats.	2500sf
Lobby	650sf
stage	650sf
Projection Booth	225sf
Storage	600sf
-Omnimax Theater for 300	2500sf
Projection and service	800sf
-Planetarium	1200sf
-Exhibition Theaters 3 @ 900sf	2700sf
-Special Events Room	1500sf
-Classrooms 4 @ 650	2600sf
TOTAL	15925sf

D. CAFE/ RESTRAUNT FOR 200.

Dining Area	2500sf
Serving Area	350sf
Kitchen	1200sf
Manager Office	200sf
Storage	450sf
TOTAL	4700sf

PROGRAM LIST

E. BOOKSTORE/ MUSEUM SHOP.

Shop Area	1200sf
Office	150sf
Storage	250sf
TOTAL	1500sf

F. ADMINISTRATION.

Reception/ Waiting	350sf
Director	250sf
Curator	250sf
Business Office 2 @ 200sf	400sf
Development	200sf
Research	200sf
Activities	200sf
Membership	200sf
Publications	200sf
Education 2 @ 150sf	300sf
Conference Room	600sf
Directors Secretary	150sf
Support Staff 6 @ 100sf	600sf
Storage	300sf
Copy Services	300sf
Employee Lounge	425sf
Reference Area	350sf
Restrooms 2 @ 225sf	450sf
TOTAL	5375sf

G. LIBRARY.

Entrance Security	350sf
Librarians office	225sf
General Office Asst Librarian	500sf
Storage	650sf
Stacks for 20,000 books	5000sf
Reference Area	400sf
Reading Room	1000sf
Archives	750sf
Flat Files	350sf
Restrooms 2 @ 200sf	400sf
TOTAL	9625sf

H. PRODUCTION ROOMS.

Shops 2 @ 1500sf	3000sf
Graphics	750sf
Storage	1000sf
TOTAL	4750sf

PROGRAM LIST

I. SUPPORT FACILITIES.

Janitorial 3 @ 100sf	300sf
Maintenance 2 @ 100sf	200sf
Storage	700sf
Shipping and Receiving	1200sf
Loading Dock	500sf
Trash Room	400sf
Restrooms 6 @ 225sf	1350sf
TOTAL	4650sf

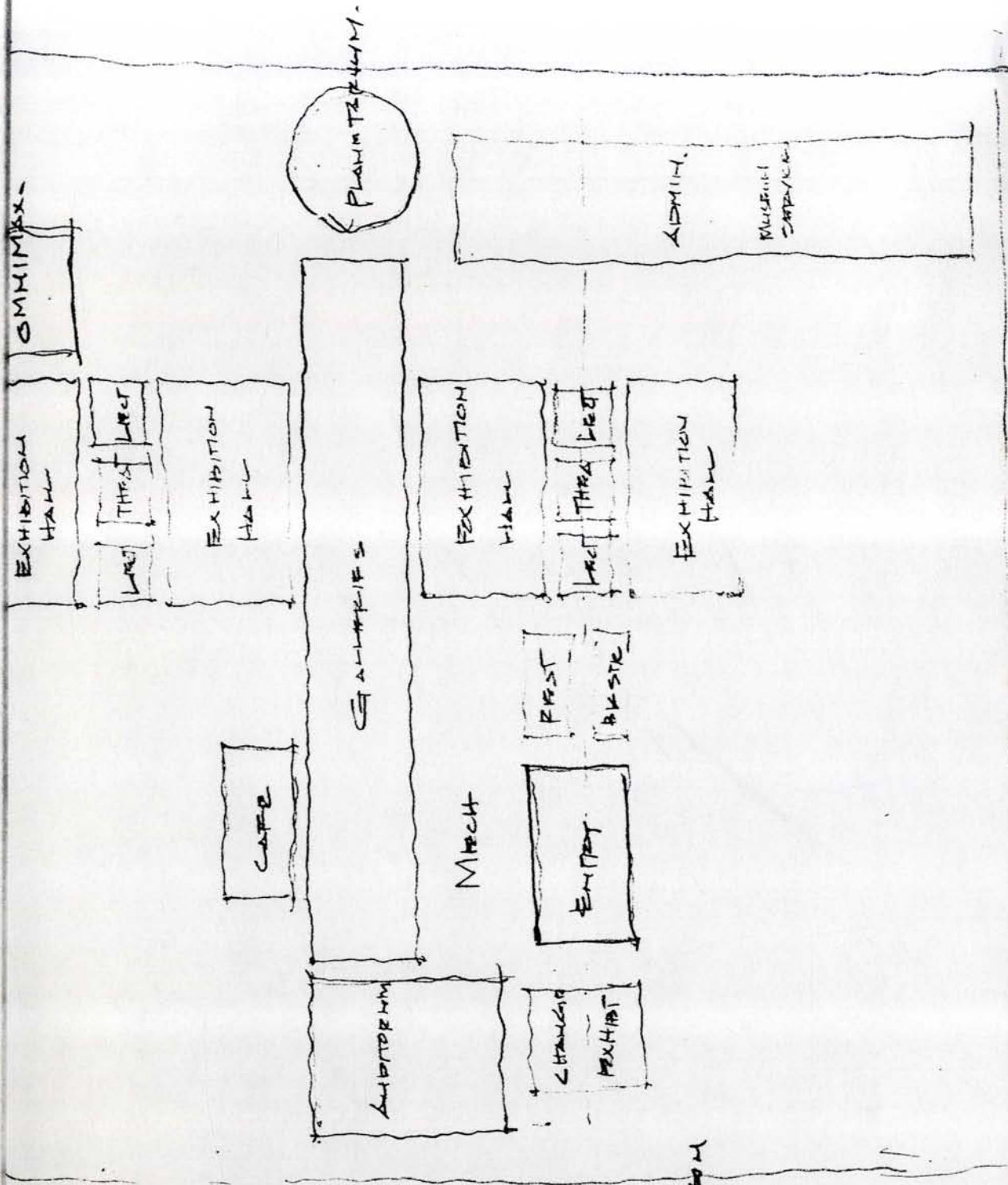
J. CIRCULATION, MECHANICAL, UTILITIES, AND DISTRIBUTION, 25% OF NET.

24500sf

TOTAL SQUARE FOOTAGE	122500SF
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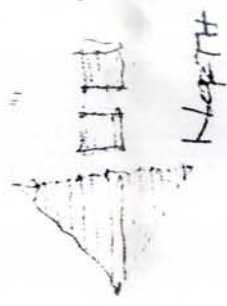
k. PARKING.

PROVISION FOR 1500 CARS.



← COUNTRY CONVENTION.

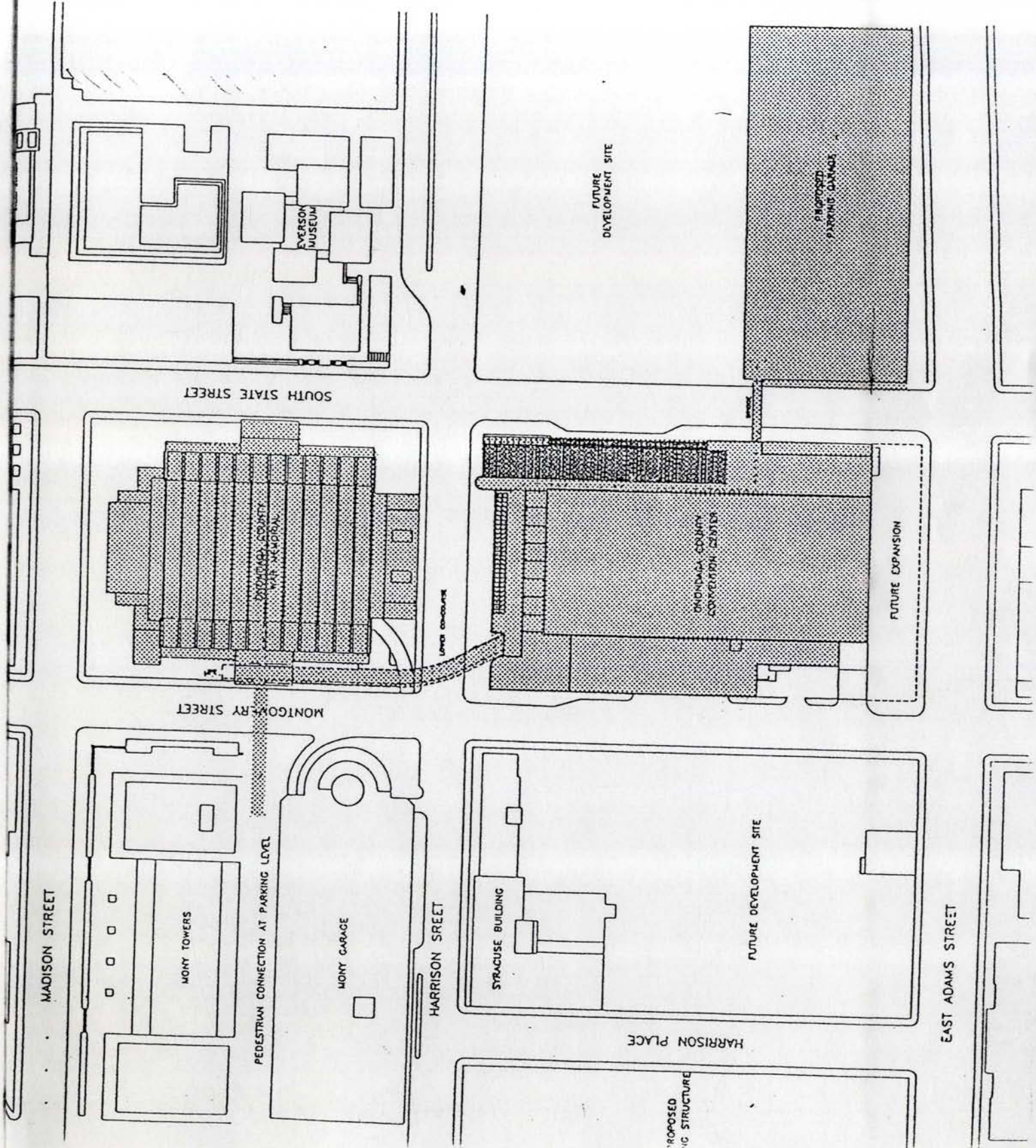
RELATIONSHIP
OF SPACES



← RECEPTION

CENTER

Syracuse, New York
Developed By:
The New York State
Urban Development
Corporation

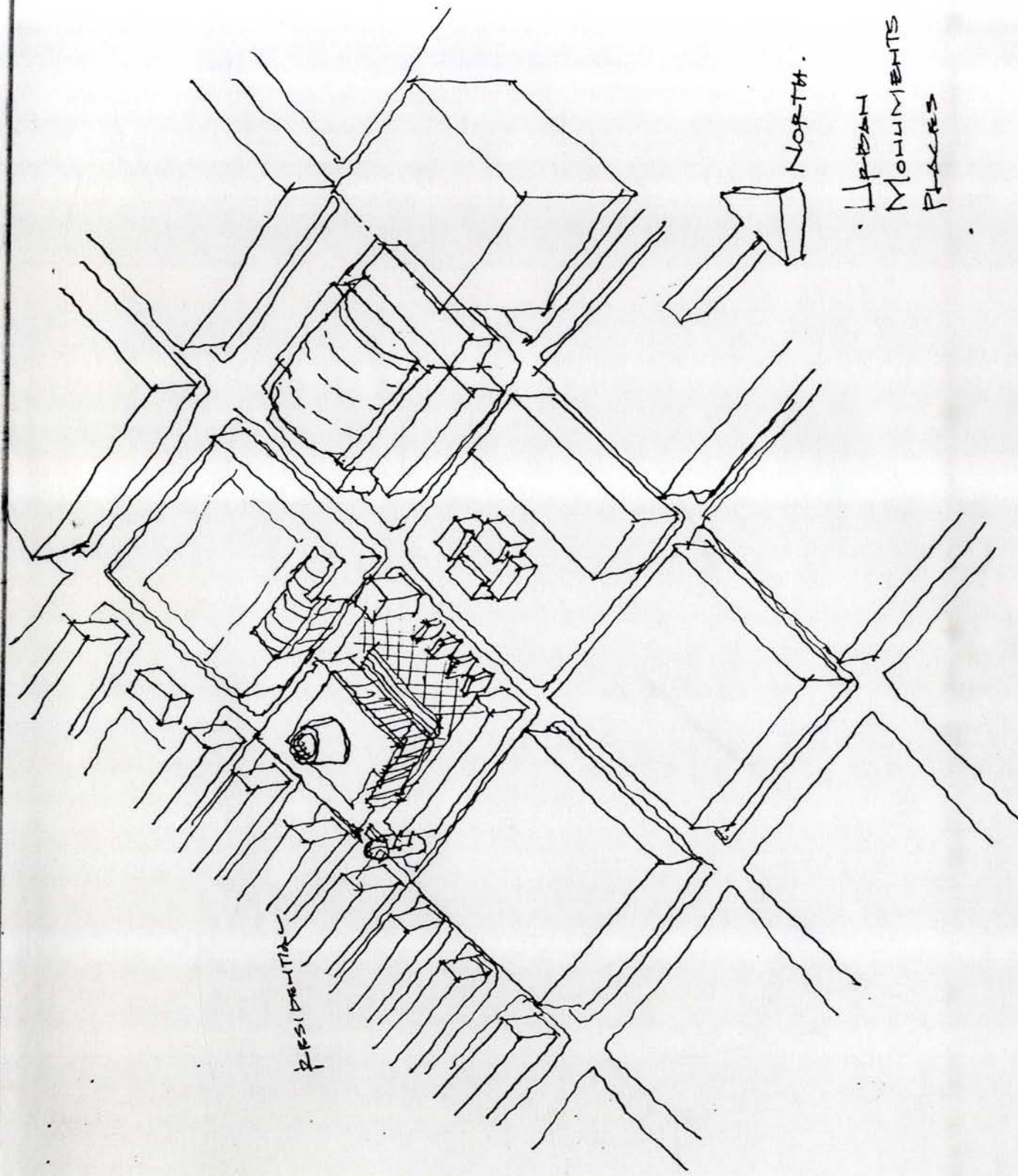


Michael/Morgan Architects
170 West 87th Street
New York, New York 10019

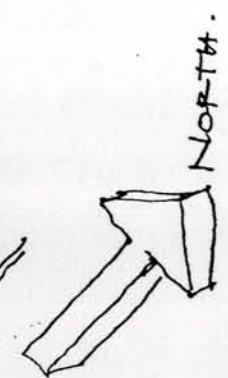
SITE PLAN WITH PEDESTRIAN CONNECTION

Date: FEBRUARY 27, 1990

Rev'd 4/27/90



PRESIDENTIAL



North.

URBAN
MONUMENTS
PLACES

Table 1 Principal North American Science/Technology Centres

City	Museum	Year opened	Operating budget	Total employees	Full-time employees	Total sq footage	Exhibition sq footage	Exhibition halls	Exhibition units	Annual attendance
Berkeley, Cal.	Lawrence Hall of Science	1968	\$2,000,000	200	120	121,000	26,400	5	200	150,000
Bloomfield Hill, Mich.	Cranbrook Institute of Science	1932	300,000	50	14	65,032	16,603	8	15	170,000
Boston, Mass.	Museum of Science	1949	2,582,797	172	137	250,000	101,000	26	270	779,511
Chicago, Ill.	Museum of Science and Industry	1933	6,160,368	496	285	600,000	400,000	75	2,000	3,815,580
Columbus, Ohio	Center of Science and Industry	1964	385,000	61	31	150,000	125,000	25	275	250,000
Dallas, Tex.	Dallas Health and Science Museum	1946	272,510	29	17	35,000	17,500	10	115	360,000
Des Moines, Iowa	Des Moines Center of Science and Industry	1970	235,000	24	8	25,000	14,000	3	30	100,000
Detroit, Mich.	Detroit Science Center	1970	159,470	13	6	9,000	4,500	1	40	60,000
Los Angeles, Cal.	California Museum of Science and Industry	1951	1,911,646	175	128	301,612	219,882	26	—	*3,606,140
Mexico City, Mexico	Technological Museum	1970	700,000	136	120	519,000	45,448	6	100	600,000
New York, N.Y.	Hall of Science of the City of New York	1966	400,000	80	42	75,000	50,000	2	35	862,000
Oak Ridge, Tenn.	American Museum of Atomic Energy	1949	275,000	30	23	54,000	26,000	6	120	200,000
Ottawa, Canada	National Museum of Science and Technology	1967	2,000,000	60	60	400,000	200,000	—	—	1,000,000
Philadelphia, Pa.	Franklin Institute Science Museum	1934	2,000,000	105	78	215,000	100,000	15	1,000	650,000
Pittsburgh, Pa.	Buhl Planetarium and Institute of Popular Science	1939	350,000	40	20	39,902	17,330	5	150	250,000
Portland, Ore.	Oregon Museum of Science and Industry	1953	1,250,000	75	55	78,363	35,000	10	230	430,000
San Diego, Cal.	Reuben H. Fleet Space Theater and Science Center	1973	1,000,000	42	22	38,708	8,000	9	28	470,000
San Francisco, Cal.	Palace of Arts and Science Exploratorium	1969	391,000	79	21	85,000	70,000	1	300	350,000
Seattle, Wash.	Pacific Science Center	1962	500,000	50	37	91,050	59,723	6	117	300,000
Toronto, Canada	Ontario Science Centre	1969	4,000,000	300	200	500,000	180,000	11	600	1,300,000
Totals			\$26,872,791	2,217	1,424	3,652,667	1,716,386	250	5,625	15,703,244

*Los Angeles museum's attendance figures include some duplication because of multiple buildings.

Table 2 Developing North American Science/Technology Centres

City	Museum	Year opened	Operating budget	Total employees	Full-time employees	Total sq footage	Exhibition sq footage	Exhibition halls	Exhibition units	Annual attendance
*Amarillo, Tex.	The Discovery Center	1976	\$30,000	5	3	8,400	4,200	2	15	—
Atlanta, Ga.	Fernbank Science Center	1967	1,500,000	79	79	27,500	9,500	1	52	500,000
*Baltimore, Md.	Maryland Science Center	1976	—	21	19	106,000	35,000	17	—	—
Bridgeport, Conn.	Museum of Art, Science, and Industry	1962	213,000	21	6	15,750	12,600	8	9	130,000
Cleveland, Ohio	Cleveland Health Museum and Education Center	1940	468,000	39	22	57,000	32,500	2	22	83,340
Fort Worth, Tex.	Fort Worth Museum of Science and History	1939	495,000	91	37	88,000	45,000	12	—	496,940
Miami, Fla.	Museum of Science	1950	615,250	30	22	33,000	18,000	7	44	600,000
Oklahoma City, Okla.	Oklahoma Science and Arts Foundation	1962	227,000	35	14	40,000	20,000	4	25	250,000
Orlando, Fla.	John Young Museum and Planetarium	1955	150,000	12	10	7,046	2,346	2	4	100,000
*Richmond, Va.	Science Museum of Virginia	1976	120,000	7	7	55,000	16,000	2	1	—
St. Louis, Mo.	Museum of Science and Natural History	1959	450,000	25	18	20,000	12,000	10	180	120,000
St. Paul, Minn.	Science Museum of Minnesota	1964	748,892	66	46	68,000	27,000	6	316	602,920
St. Petersburg, Fla.	Science Center of Pinellas County	1960	150,000	15	6	—	1,200	1	6	17,500
West Palm Beach, Fla.	Science Museum and Planetarium of Palm Beach County	1961	120,000	9	7	11,500	10,000	2	4	100,000
Totals			\$5,287,142	455	296	537,196	245,346	76	678	3,000,722

*Anticipated opening dates and figures. Buildings now under construction.